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THE UNITY OF INSANITY.[1]

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The basis for the conclusions advocated in this paper is in the evidence furnished by the study of the cases included in the paper presented to the meeting of this association in St. Louis two years ago. These clinical studies, which had for their object the correlation of the mental with the physical, also developed certain data that have thrown some new light upon the purely psychological aspect of the study of insanity, and when considered in the light of modern physiological psychology; freed from the confusion of metaphysic terminology, they have seemed useful to us in the appreciation of the significance of the manifestations of perverted mental activity in the insane. Especially so, because the correlation of the mental with the physical suggests that the unity found in the apparent diversity of their relations, implies a similar unity in the aberrant manifestation of these same relations. That is, that all forms of insanity have a common basis, and that their apparent diversity is dependent upon inherent physical conditions resulting in instability or defect, which operate to determine a definite sequence in their manifestations, in accordance with the conditions in the environment of the individual affected.

These data may be summarized as follows: Those activities which make conduct possible, necessarily antedate the activities that are manifested in conduct; and the quantity and kind of the activities involved are the same, without regard to whether the

[1] Read at the sixty-second annual meeting of the American Medico-Psychological Association, Boston, June 12-15, 1906.

conduct is or is not properly related to the environment of the individual. In the study of insanity we are not dealing with a tangible entity, but with the manifestations of perverted function that have no material qualities, and, furthermore differing from each other in detail as widely as do the material characteristics and environment of the individual in whom they are manifested. There is no abstract difference between the conduct of the sane and the insane! The difference lies in the relation of the activities involved to the environment, and the degree of control of the activities that are manifested in conduct. In other words, we are dealing with alteration not destruction of function. In the one case these activities represent a response to external stimuli, the effect of which is habitual; while in the other, they are excited by centrifugally generated stimuli, more or less out of accord with external conditions.

Our experience has taught us that, in acute outbreaks of mental aberration, there has been antecedent somatic involvement, and there is coincident perversion in the processes of metabolism, even where there is no definite disease; and that the loss of control of the activities that are manifested in conduct is in proportion with the extent of the somatic involvement. Again, in somatic disease, and especially in the acute infectious forms, there is mental aberration manifested as delirium. It is also true that the presence of the delirium and its degree are not necessarily in proportion with the seriousness of the illness; but the degree of the mental disturbance and its extent are always in a direct ratio with the evidence of instability in the mental constitution of the individual. So that there may be active delirium, or even maniacal excitement, in an otherwise comparatively mild case of typhoid fever or pneumonia; in the puerperium after an easy labor, or in moderate alcoholism; while any one of these conditions may be extreme in other individuals without any manifestation of mental aberration. It is not very uncommon to see persons in the delirium of typhoid fever committed to the hospital as insane, where the presence of the somatic disease has been entirely overlooked. Also, violent excitement and special sense perversion may be the only evidence of the presence of alcoholism. So far as our experience goes, these individuals have in common an unstable nervous system, and those who suffer from the somatic ef-

fects only of these disease conditions do not. The same is true of syphilis, tuberculosis, and gout.

From these observations it seems obvious that there must be involved in the development of insanity in the individual, not only the directly acting cause furnished by the conditions in his environment, but also instability or defect in the development of the general nervous system; resulting in the diminution of its capacity, and the limitation of its potentiality to a varying degree. Furthermore, the groups into which the various manifestations of mental aberration would naturally fall, would be made up of those individuals in whom there was the same relative degree of defect, and the variation in the manifestations of the insanity in the different groups, would be the result of the difference in experience and environment. In other words, mental activity must necessarily be correlated with all of the organic processes, of which it is the synchronous expression; and this correlation is only possible when the potentiality of the nervous system is sufficient to maintain the coefficient of relation, coordination, and direction.

Primarily, then, we have to deal with the cerebral potentiality of the individual, as influenced by the conditions in his environment which exhaust this potentiality directly by overtaxation, or indirectly by the influence of impaired vitality in the general organism upon the limited mental capacity of the individual. Next in importance comes the recognition of the fact that in any given environment, the general conditions are practically uniform for all who are included within reach of their influence; consequently, if these conditions are harmful to some of those who live under them, there must be some inherent weakness in the individual that unfits him to adapt himself to them, so as to conserve his own welfare. When this inability is in the direction of physical activities, the result is apparent to every one; but, strangely enough, it has not been recognized as equally obvious that the lack of mental capacity that shows itself in imperfect control, incapacity for persistent effort and definiteness of direction, are the evidence of instability and defect, and, therefore, the expression of a limited cerebral potentiality.

The conditions connoted by the terms instability, defect, and degeneration, are so varied by those who use them, that there is

a great deal of confusion as to their real significance; and just what departures from the normal are meant to be correlated and delimited by them. On this account these terms do not convey a definite meaning, and lead to erroneous beliefs as to their significance in describing pathological conditions.

In order to obviate confusion as to what is connoted by these terms as here used, the following definitions are given, based upon the etymologic significance of the words, according to their derivation.

Instability may be defined as the liability to give way. Physically, by imperfect balance, and the tendency to respond excessively to the stimulus of slight incident forces. Chemically, by looseness of molecular combination. Biologically, by development of the functional at the expense of the structural tissues.

Defect may be defined as incompleteness; because of the absence of an element or part, irregularity of development or arrest of its processes. Physically, inertia, and the tendency toward reduction. Chemically, incompleteness or irregularity of molecular combination. Biologically, the tendency toward development of the structural at the expense of the functional tissues.

Degeneration may be defined as the process of reduction from the normal plane of development. Physically, by the change from the complex to the simple, the disintegration of energy. Biologically, by the atrophy of functional and the relative increase of structural tissue; the antithesis of development. Mentally, by the disintegration of the elements of mental capacity, particularly the loss of the power of attention, direction, and control.

The application of these definitions in psychiatry is simply to adapt the terminology of psychiatry to the current teaching of physiological psychology.

In the unstable individual, those influences in the environment that to the ordinary individual are indifferent, become disagreeable, painful, or fatiguing; while in the defective individual external impressions are not properly related, and are imperfectly coordinated, with the resulting confusion that follows futile mental effort. In both cases there is resulting incapacity, with loss of control, more or less permanent, according to the physical capacity of the individual, and the extent of the reserve force in the general organism. If the strain upon the nervous system be

extreme or persistent, it is easy to see how a vicious circle will be established, with the resultant perversion of mental processes and impairment of mental capacity.

It is important, in order to avoid confusion, to make a definite distinction between mental aberration and loss of mental capacity; in other words, between insanity and dementia. While it is true that the presence of insanity presumes the precedence of loss of mental capacity, it is also a fact that mental aberration may be present in any one, and not necessarily interfere with his relations to those about him. The insanity only becomes apparent when the individual is no longer able to control the activities that are manifested in conduct; and this loss of control will always be found to be the sequence to mental reduction, and the resulting confusion. This loss of control may be temporary, and the result of anger, pain, intoxication, or disease affecting the vitality of the general organism. But during the time of the absence of control, the conduct of the individual does not differ from the conduct of any other insane person. Indeed, in the ordinary relations of life, we determine the sanity of a man's conduct by the degree to which his power of self-control is developed. In some individuals this loss of control is more easily brought about than in others, and the loss is also more extreme and persistent. That is, they are normally deficient in this kind of mental capacity. In this class may be included those who commit crimes of violence and brutality. The history of these individuals shows them to have always been without capacity to appreciate anything except in its relation to self. There has persisted in them the primitive tendency toward the uncontrolled gratification of desire. There is also in these individuals an inherent dysesthesia that makes persistent effort a burden, and stimulates the craving for alcohol and narcotics. The experience of all but the most exceptional individuals will furnish incidents that exemplify the temporary existence of this dysesthesia, as the result of pain, privation, or grief; and every physician of experience has been called upon to deal with manifestations of mental aberration resulting from stress and strain of social and industrial competition, domestic exigency, or conjugal catastrophy. A study of these individuals and their life history would reveal the fact that their conduct had shown them to have been always unstable. There had been re-

current periods of exaltation and depression during which they were more or less uncontrollable, intolerant of restraint, and unable to apply themselves definitely to any occupation; while in their periods of normal mental status they were not materially different from their fellows. It would also be noted that this instability was most marked during adolescence, and that it was extreme just in proportion to the lack of those influences in the environment of the individual that conserve the physical welfare and tend to develop self-control. However, these individuals increase in intelligence as they grow older, and attain a degree of self-control that carries them through life without any manifestation of mental aberration that would materially interfere with their relations with those about them. On the contrary, if the personal habits of the individual are such as to make him the victim of alcoholism or syphilis; or, if as the result of constitutional weakness, degenerative change sets in during adult life, as the result of exposure, strain, or overwork; then there begins a similar disintegrative change in the brain that has reached the limit of its capacity, and mental reduction begins. Now, if untoward conditions arise, the changes in the character and conduct of the individual soon become apparent in his relations with his fellows; and, in accordance with the law of reversion, those attributes that are primitive tend to progressively dominate the conduct. In other words, he becomes demented. Insanity, then, may be said to have to do with the confusion of the simple relations; while dementia indicates the loss of the power to coordinate the complex relations.

Insanity will manifest itself during the different periods of life in accordance with the mental constitution of the individual, and in each epoch its manifestations will be characteristic of the mental capacity of the group in which the individual belongs! During the period from second dentition to puberty, there is confusion, suspicion, fear, and explosive violence. During adolescence evidence of instability or defect is more apparent, and its influence upon the nature of the aberration is more conspicuous. In those individuals in whom the degree of instability is the slightest, there may be only a period of confusion, with alternate exaltation and depression. If the instability is greater, the conditions in the environment which gave rise to the simpler mani-

festations of aberration, will have greater effect and be more persistent; and the confusion may develop into stupor, ecstacy, or trance. The exaltation may become explosive violence; and the depression degenerate into complete inhibition of the processes of relation, coordination, and emotion; accompanied by muscular rigidity; and even involving the vegetative processes, so far as they are volitional. In the defective, however, because of the inherent limitation of capacity for relation and coordination, those manifestations that are extreme in the unstable become the primary ones; and the animal-like furtive suspicion and fear, alternate with explosive violence, or the disposition toward seclusion, with extreme inhibition and rapid mental reduction.

In the period of adult life the individual having acquired more intelligence and a greater degree of self-control, insanity is practically always consecutive; and the intellect being more highly cultivated by the diversity and complicated nature of the experiences, there is a more or less prolonged period of introspection preceding the loss of the control of those activities that are manifested in conduct; with the resulting morbid self-consciousness. As a rule, too, some physical strain, over-work, or disease has lowered his vitality, so that there is a persistent dysesthesia. Ordinary sights and sounds have a special purport, and are associated with experiences in the life of the individual that have been untoward or unfortunate. After a time, and as the result of the persistent dread and suspicion, confusion supervenes, and the voices of those by whom he is surrounded are heard to utter sneers or threats, to make accusations, or suggest ulterior motives for his conduct; while to the sight, the actions of friends or relatives assume a corresponding significance. This self-absorption, and the resulting indifference to bodily habits and wants, produces indigestion and constipation. The autointoxication that results leads to tactual, olfactory, and gustatory hallucination; while the visual and auditory hallucination, and the pictures that result from the wrong relation suggested by the morbid self-consciousness, end in depreciatory and persecutory ideas, which gradually acquire a substantive basis with a definite sequence. The individual becomes impervious to evidence or demonstration. The persistence of sights and sounds forms a picture of that which is dreaded and anticipated. Suspicion ends in certainty of

belief; the nature of the belief varying with the changes in the environment, governed largely by the previous experience of the individual, changing in form, but always having the same substantive basis; the definition of the belief varying with the amount of mental reduction.

Even the normal individual is not always on the same plane of mental activity. That is, there is a cycle consisting of the normal plane of activity, out of which develops a period of exalted activity, to be followed by a more or less gradual fall to the subnormal, and then the return to the normal. These variations are most apparent and extreme during adolescence, most conspicuous in the unstable, and in the defective they may be aberrant in the order of their recurrence. The persistence of the normal plane of activity is also dependent upon the physical condition of the individual. Vigor will prolong the exaltation of capacity; while lowered vitality will intensify the depression from the normal plane. Besides, under certain conditions representing strain or exhaustion in the nervous system, a rapid variation in the complements of the cycle may occur, with entire disappearance of the normal plane of activity. Therefore, there is represented in the phases and alternations in the mental activity of the ordinary individual, all of the manifestations which, when extreme, are described as the evidence of insanity. Were all people exactly alike, and were their hereditary predispositions similar; then, given similarity of experience and conditions in the environment, we might predicate uniformity in the manifestations of their mental activity. But, although this likeness is impossible, there is a certain similarity in both environment and experience that serves for the definition of the average; and gives us the basis for our deductions as to the mental status of each other. Then, too, the variations in the conditions in the environment are never entirely individual, but fall naturally into classes, as they are developed by the common experiences of those individuals who are associated together, similarly placed, or similarly influenced by the conditions with which they are surrounded; and these individuals would naturally be the ones of similar mental capacity. The man of limited intelligence and the child see in the woods and in the graveyard the forms of animals or men, his enemies, or the spirit of some restless tenant of the grave come to frighten

him. In both there is the persistence, as a tendency of an attribute common to their remote ancestors. The cultivated individual, however, becomes the victim of morbid introspection, sees the vision of his failures or disappointments grown large, or reads into the attitude or actions of those about him the reprobation he dreads, or the malice his self-consciousness prompts him to anticipate; and he shrinks and tries to hide from what he fears will overwhelm him, cunningly plans escape or revenge; or, frenzied by fear, he violently denounces or attacks his enemies, or would defend himself against them. Therefore, the form in which the mental aberration will manifest itself, will be determined by the capacity of the individual to be influenced by the conditions in his environment, and his reaction toward them will be determined by his ability to appreciate his relation to them. In other words, his ability to "adapt internal to external relations." You would not expect the same response from the individual of limited capacity and no culture, that you would from the keen intellect highly cultivated; nor would the definition of their experiences be equally valuable with relation to their individual welfare.

Those who live with the insane, and observe them closely for long periods, cannot help but note the absence of those clinical syndromes usually called forms of insanity. Among recent cases, the man who is exalted to-day may be depressed to-morrow. He may laugh and cry alternately; or the beaming good nature of this week may become the sullen depression of next week; according as the euesthesia and grandiose ideas are followed by the recurring dysesthesia and depreciatory and persecutory ideas. Or the man who at one time is the victim of religiosity and pietism, praying and haranguing his neighbors, or busily reading the bible; at another time is boisterous, profane, and obscene. Again, he is wandering about haggard and anxious; deploring his condition and, ever alert for an opportunity to attempt suicide. The chronic alcoholic comes into the hospital violently excited, sullen and irritable, and may be delirious or comatose. But with the relief of constipation, improvement of digestion, and in proportion with the rehabilitation of the functional activity of the kidneys, these manifestations of mental perversion disappear, and only confusion remains, or the more or less well defined persecutory ideas that had been present for a long time, but had been

masked by the acute outbreak. During the course of the acute outbreak there may have been present all of those particular manifestations that are classed as entities constituting particular forms of insanity. The man who comes into the hospital in the condition of depression may have been before, or will be again, the victim of exaltation or maniacal excitement; and the woman who, following labor may become wildly exalted, profane and lacivious, at the end of the month may be picking the bed clothes to pieces, smearing her food and feces in her hair or over her person, and drinking her urine. Again she may become violently excited and homicidal, or the victim of phrensied agitation, and persistently suicidal.

In studying the history of the individual in 8000 cases of insanity, with the object of determining the primary mental status of the patient, it was invariably found, either in the history, or from information furnished by the relatives, that the patient who was excited when he was brought to the hospital, had been depressed before the outbreak of excitement; and those who were depressed when committed had passed through a period of exaltation or excitement, before the depression was recognized as the evidence of mental aberration. In those cases where a complete life history of the individual was obtained, it was found that, without regard to the apparent form of mental disturbance present at the time of admission, there had been alternating periods of exaltation and depression since puberty, and that these alterations had been conspicuous, just in proportion with the indications in the life history of the individual of the presence of instability and defect. When the degree of defect in the cerebral development of the individual is so great, and the potentiality so limited, that his capacity is exhausted in the beginning of the period of adolescence, the process of degeneration begins before development is complete, and in its most extreme form is manifested in simple progressive dementia; and whatever mental aberration there is, is shown in perverted sense relations that have to do directly with animal existence; while, in those in whom defect is not so marked, and even in the unstable late in life, this same degree of mental reduction may develop as the result of physical conditions that give rise to extreme somatic degeneration; like tuberculosis, syphilis, alcoholism, or arterio-sclerosis.

Another fact is of importance in this connection. In the defective, a traumatism involving the brain, in our experience, may serve as the starting point for the process of dementia; and, if there is no resulting irritative lesion, the progress of the dementia may be unaccompanied by any manifestation of active mental aberration. However, if the nature of the injury or the anatomical relations of the injured area afterward are of such a nature as to cause pressure or hypostatic congestion, there is a marked aberration, usually in the form of extreme irritability, restlessness, or explosive outbreaks of violence. Again, these same manifestations follow a chronic pachymeningitis, and the occlusion of the pial veins in the frontal area.

In the absence of limited cerebral potentiality, we have not seen these manifestations, even in cerebral traumatism, pachymeningitis, or in connection with degenerative or destructive syphilitic lesions of the brain, although the motor and sensory functions may be seriously interfered with. The same is true with regard to the exigencies of the period of adolescence, and the strain of adult life; even where this is extreme and unusual on account of the incidence of disease, overwork or privation. These conditions are always present, and their somatic effects are apparent in every-day experience. They commonly, too, involve the general nervous system, affecting its sensory and motor functions; but they do not produce mental aberration or reduction in the individual in whom there is no evidence of instability or defect.

So far as the psychogeny of insanity is concerned, the laws of development and degeneration apply as definitely. When development is incomplete, that which is highest and most complex will be lacking, and the process of degeneration will begin with that which is imperfect or incomplete. And, as conduct represents our response to the influence of the conditions in the environment, it also indicates the extent of our ability to adapt ourselves to them. Mental processes do not arise *de novo*, any more than do the activities that result from them. Therefore, no matter how incongruous the conduct of the individual with relation to his surroundings, or how distorted his ideas, they must represent preexisting experiences and impressions which are wrongly related to the conditions in the immediate environment. By com-

parison of the conduct of the insane with the conduct of the sane, it will be found that, within the same limits, it does not differ in kind or quantity; and that in both cases it is directed toward the same general objects. From the standpoint of the individual, his conduct is the expression of his attitude toward his environment, in accordance with his understanding of his relation with it, and it is the reflex of the content of his consciousness concerning that relation. In the insane, just in proportion with the loss of power of attention, and of the ability to relate and coordinate impressions coming from the environment, will be the aberration of response to these impressions, and the domination of the intellectual processes by pre-existing impressions. The confusion that results is the measure of the strain resulting from the imperfect relation and incoordination; while the degree of reversion shown by the conduct will indicate the amount of defect present. The extremity of the alternations in emotion, and the extent of the loss of control of the activities that are manifested in conduct will determine the reduction in mental capacity.

PARESIS: A RESEARCH CONTRIBUTION TO ITS BACTERIOLOGY.*

(From the Clinical Laboratory of the Cincinnati Sanitarium.)

By F. W. LANGDON, M. D.,

Medical Director.

Paresis, paretic dementia, or as most British authors still prefer to call it—general paralysis of the insane—stands alone amongst the insanities as a disease presenting an unmistakable clinical history, a definite pathology as regards the brain cortex, a constant morbid anatomy and an invariably fatal outcome within a fairly fixed period of time. Not only is it unique, considered purely as a psychosis—but, in addition to its characteristic mental features, its extensive symptomatology eventually embraces the entire nervous system. Thus it is manifested by sensory, motor, reflex visceral, vaso-motor and trophic impairment; and by reason of this widespread abolition of function, the entire organism suffers; hence the older term "general paralysis." In fact, as is well-known to all of us, it is a general disease, its psychic features being incidental;—local expressions of the action of a widely distributed cause or causes. It is an important disease, by reason of its frequency as well as because of its fatality. Thus: Robertson[1] states its frequency at leading British institutions for the Insane at ten to sixteen per cent; and in Naples he states that it constitutes thirty per cent of the admissions.

Notwithstanding the great practical importance of the subject, the actual cause of the disease has remained a profound mystery. The alleged causes which find place in our current text-books may be summed up as "Civilization and Syphilization," or "Wine, Women, and Worry," which to the thoughtful alienist are merely convenient alliterations which serve to occupy, but can never fill, the hiatus in our knowledge of the actual causation of the disease.

* Read before the American Medico-Psychological Association, Boston, June 14, 1906.

[1] "The Pathology of General Paralysis of the Insane," by W. Ford Robertson, M. D. Rev. Neur. and Psychiatry, Feb., Mar., April, 1906.

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Any investigation, therefore, which may cast light upon the origin of such a disease is of prime importance, since it is in this direction that we must look for its prevention, if preventable, or its cure, if curable.

Of all the numerous attempts to solve the problem of the actual cause of Paresis, none have seemed to the writer so important as regards completeness of technique, fruitfulness in actual results attained, and promise of future usefulness, as those of Dr. W. Ford Robertson, Pathologist to the Scottish Asylums, and by him recently incorporated in a series of three papers which constitute "The Morrison Lecture for 1906."[2]

A brief synopsis of his investigations,[3] which extend over a period of four years, and are of a most painstaking character, is as follows:

(1) Paresis is caused by a widespread infection of the organism by a specific bacillus—the *Bacillus paralyticans.* This bacillus possesses morphological characters and staining affinities which have led him (Robertson) to apply to it the term "diphtheroid." Nevertheless he is inclined to the view at present, that it is distinct from the Klebs-Loeffler bacillus of diphtheria. The *Bacillus paralyticans* is observed in two forms: (a) as single individuals grouped irregularly, (b) as a filamentous or thread-like form supposed to be due to rapid proliferation and non-separation of the individual organisms. This filamentous form is also supposed by Robertson to represent a "terminal" invasion of the victim.

(2) The *Bacillus paralyticans* gains access to the system by way of the respiratory tract and the alimentary canal chiefly.

(3) Syphilis, alcoholism, dissipation and the "strenuous life" generally are merely factors in "breaking down the general defences" against bacterial invasion.

(4) The invasion of the blood, lymph, and tissues by the *Ba-*

[2] Vide Review of Neurology and Psychiatry, Vol. IV, Jan., Feb., Mar., 1906.

[3] Dr. Robertson gives full credit to several associates in his work; namely, Dr. Douglas M'Rae, Dr. John Jeffrey, Dr. A. Ainslee, Dr. Chalmers Watson, Dr. Shennan and others; also to Dr. Lewis C. Bruce, who has made independent investigations along the same lines (British Med. Jour., June 29, 1901).

cillus paralyticans gives rise to the production of "toxines" to which the various trophic, degenerative, convulsive, and paralytic phenomena of the disease are due.

(5) The *Bacillus paralyticans* has been found (by Robertson) in the bronchial, alimentary, and genito-urinary mucous membranes; in the cerebro-spinal fluid, in the brain; in the walls of the cerebral blood-vessels; in the blood, the urine; and in other tissues, organs, and secretions when properly investigated.

(6) The living blood (especially the polymorphonuclear leucocytes) possesses the property of destroying the *Bacillus paralyticans* to a marked degree. To this fact is due the "remissions" so characteristic of the disease.

(7) As regards the frequency with which the *Bacillus paralyticans* is found in subjects of general paresis, Robertson, M'Rae, and Jeffrey, working with cultures of post-mortem material, found it in seventeen cases out of twenty; and in the remaining three cases it was found on making sections of the alimentary canal. In a series of twenty cases it was found constantly in the catarrhal exudations of the respiratory and alimentary tracts. In five of these cases the filamentous or thread-like form was found.

(8) "In seven consecutive cases of tabes dorsalis we have found the centrifuge deposit from the urine to contain abundant unaltered diptheroid bacilli" (Robertson).

(9) As regards the effects of the bacillus on lower animals: "It was ascertained that the organism was non-pathogenic to guinea pigs." Three rats were fed for several weeks upon bread mixed with unsterilized broth cultures of the bacillus. After three or four weeks they began to show morbid symptoms which gradually increased in severity until the animals became acutely ill. At first they showed, especially, slowness and uncertainty of gait and drowsiness. Later they manifested distinct motor weakness, marked inco-ordination of movement, dyspnœa and great drowsiness. One rat was killed with chloroform when it appeared to be moribund. In the other two, the disease was allowed to go on to a fatal termination, which occurred about two months from the time of commencement of the feeding with cultures. Control animals remained healthy."

"Microscopical examination revealed in each animal a similar series of morbid changes. There was well-marked catarrh of

the alimentary tract in all three, and a similar condition of the bronchi in two, accompanied by some catarrhal pneumonia. The diphtheroid bacillus was found in the catarrhal exudations, but its detection presented the same difficulties as in cases of general paralysis. A large proportion of the nerve-cells of the cerebral cortex and spinal cord were markedly degenerated. The neuroglia, especially in the first layer of the cortex, showed slight but distinct proliferative changes. There was distinct increase of the cell-elements in the walls of the cortical vessels and also proliferation of the mesoglia cells and of the cells of the pia-arachnoid. In the two rats in the case of which the illness was allowed to go on to a fatal termination, there was extensive invasion by the filamentous organism already referred to. In one animal the threads were found in the lymphatics of the stomach, duodenum and ileum as well as in the liver and in the walls of the bronchi.

In the last-named situation this invasion exactly reproduced the histological picture to be observed in the case of general paralysis from which the bacillus was isolated. In the other rat this filamentous organism was found in the walls of the stomach, duodenum, and ileum, and also in the capsule of the spleen and in a lymphatic gland. Beyond question these animals present evidence of the occurrence of many of the morbid processes that can be recognized in the nervous system of the general paralytic, but they survived too short a time for the complete histological picture to be developed."

For the details of the experiments upon which the foregoing brief abstract is based the reader must be referred to the intensely interesting lectures of Dr. Robertson.[4] As regards the practical outcome of these researches, it is evident that they not only point the way to a greater certainty in diagnosis of both paresis and tabes at a much earlier stage than is now possible, but that they also hold out rational hope of the discovery of means of preventation and cure—of both diseases.

On this point Robertson himself says: "Of more immediate interest is the question whether or not there is any reasonable prospect of these hitherto incurable diseases becoming amenable to treatment. On the ground of facts observed I feel justified

[4] Rev. of Neurology and Psychiatry, 1906, Feb., March., April.

in saying, with considerable confidence, that there is. The general paralytic defends himself, and often with prolonged success, by manufacturing specific bacteriolytic anti-bodies, with the aid of which the invading bacilli are repelled. Such specific anti-bodies can be produced in suitable lower animals and used as therapeutic agents, and it seems probable that with their aid it may be possible to induce a prolonged remission of the paralytic toxæmia. If this could be effected at an early stage of the disease, the damage to the nervous system would be slight, and the result might legitimately be regarded as a cure. . . . . We are at least, going to give such serum treatment a trial." The present paper does not presume to present an abstract of Dr. Robertson's investigations, for his lectures are, in themselves an abstract of more than four years of laborious observation and skilled technique on the part of himself and colleagues. To abstract this would be to reprint his lectures entire. Those who wish to follow the subject through all of its intricate and fascinating phases must consult the original lectures.

It is evident, however, from the foregoing brief notes of some of this distinguished investigator's conclusions, that the question of the presence or absence of the *Bacillus paralyticans* in a case of alleged paresis or tabes, is an exceedingly important one. To contribute even in slight degree to the solution of such a vital problem is a work creditable to any laboratory and one upon which numerous investigators are doubtless already at work.

With a view to making such contribution, so far as opportunity affords, the writer has caused to be instituted in the wards of the Cincinnati Sanitarium and in its Clinical Laboratory a series of observations on general paretics, the result of which are herein summarized.

The present paper is to be viewed merely as a "report of progress" up to date; of observations still under way and to be continued. Briefly, they show:

(1) That the *Bacillus paralyticans* has been found by us in the blood, cerebro-spinal fluid, urine and urethral mucus, of paretics.

(2) That the bacillus is absent in the urine, pharyngeal, and tonsillar mucus of healthy control individuals and of those with other psychoses.

(3) It is to be regretted that our institution, being a strictly private hospital, does not often permit of study of post-mortem material. This deficiency, however, we will be able to rectify in the future by reason of the kind courtesy offered by Dr. F. W. Harmon, Superintendent of Longview State Hospital, and of his associates, Drs. W. C. Kendig and J. W. Mann, who have co-operated heartily with the writer in the present investigation.

The material which forms the basis of the present research has been derived from 17 individuals. Of these 10 were well-marked paretics, clinically considered.

The *Bacillus paralyticans* was found and cultures obtained in three cases only. It is only proper to state, however, that in several of these, as detailed further on, only material from the pharynx and tonsils was examined. In others urine only. In one of the two which gave positive results, opportunity was afforded to obtain cerebro-spinal fluid, post-mortem, and the bacillus was found in abundance both in smear preparations and cultures. Figures 2 and 3 of the accompanying illustrations are made from photo-micrographs obtained from cultures in this case (Case No. 3). Very good examples, not here figured, were also obtained in this case, in smear preparations from the fresh cerebro-spinal fluid, obtained post-mortem. In the second case of undoubted paresis in which the *Bacillus paralyticans* was obtained it was found in the urethral mucus. This was the only secretion examined in this case (Case No. 8).

In two cases of doubtful diagnosis, but presenting several paretic symptoms (Cases 11 and 12) the *Bacillus paralyticans* was found in one quite abundantly in the urine at two examinations, and on each occasion pure cultures were made showing the thread form. (Fig. 1.)

In one case (C. 13) of organic dementia (probably softening from vascular disease) cultures were negative as regards the bacillus. The same was true of a case (14) of dementia præcox, and of three control examinations of material from attendants and physicians who were in frequent association with paretics. For further particulars the reader is referred to the synopsis of cases and material examined which follows. As already stated our observations are still in progress under the restrictions which necessarily obtain in a private institution. It is quite possible,

therefore, even probable, that the bacilli may be found in other cultures from patients here recorded as negative in results.

Case 1.—P., female, age 38, married; two children, said to be healthy. Clinical diagnosis, paresis. Duration of symptoms, six months. Indifferent to family affairs, mildly elated, dementia, paretic speech, facial twitching, Argyle-Robertson pupils, syphilis not indicated. Mucus from pharynx and tonsil examined. Four cultures on Loeffler's serum and on blood serum made. Stain methylene blue. Result negative as regards *Bacillus paralyticans*. Staphylococci and streptococci found.

Case 2.—McP., male, age 42, single. Traveling man. Clinical diagnosis, paresis. Syphilis in history two years previous to observation. Dementia, irritability, mild exaltation, one recent unconscious attack. Unequal pupils, iridoplegia to light. Material examined: Mucus from pharynx and tonsil. Four cultures made on blood serum. Bacillus paralyticans not found. Streptococci predominate.

Case 3.—W. H. B., male, age 54, married. Business man. Tabetic type of paresis. Bedridden for 18 months. Advanced dementia, mildly elated, emaciated. From this patient smear preparations and cultures on blood serum and on agar were made from the cerebro-spinal fluid obtained post-mortem. By both methods the *Bacillus paralyticans* was obtained in abundance. Figs. 2 and 3 are from photo-micrographs of preparations from this case. Cultures were also made from this patient—ante-mortem—of blood and of mucus from pharynx and tonsils, with negative results as regards the *Bacillus paralyticans*.

Case 4.—W. G. S., male, age 66. Financier and promoter. Clinical diagnosis, paresis, tabetic type. Duration of symptoms, about two years. Irritable and mentally weak for eight months; suspicious and elated by turns. Ataxia, Romberg symptom, Argyle-Robertson pupils, loss of sphincter vesicæ control. No knee-jerks. Mucus from tonsil examined. Cultures made on blood serum and agar. Result negative as regards *Bacillus paralyticans*.

Case 5.—J. H. B., male, age 32. Physician. Married. Clinical diagnosis, paresis. Duration of symptoms, about two years. Depression followed by megalomania. Marked dementia. Maniacal at times. Pupils sluggish to light, slight ataxia of gait, diminished knee-jerks, stumbling speech. Material examined: Urine, smear of centrifuge deposit. Result negative as regards *Bacillus paralyticans*. Case still under observation.

Case 6.—V. G. B., male, age 52, widower. Merchant and speculator. Clinical diagnosis, paresis. Duration of symptoms, two and one-half years. Elated, megalomania, marked dementia, Argyle-Robertson pupils, plus knee-jerks, ankle clonus, paretic speech. Material examined: Urethral mucus. Two cultures made on agar. Mucus from pharynx and tonsil. Two cultures made on blood serum. Result, *Bacillus paralyticans* not found.

EXPLANATION OF PLATE V.

FIG. 1.—Bacillus paralyticans, thread form. × 750. Culture on blood-serum and agar of centrifuge deposit from urine. Case 2. Some streptococci are also present.

FIG. 2.—Bacillus paralyticans. × 1000. Pure culture on blood serum from cerebro-spinal fluid. Case 3.

FIG. 3.—Bacillus paralyticans. × 750. Pure culture on blood serum from cerebro-spinal fluid. Case 3.

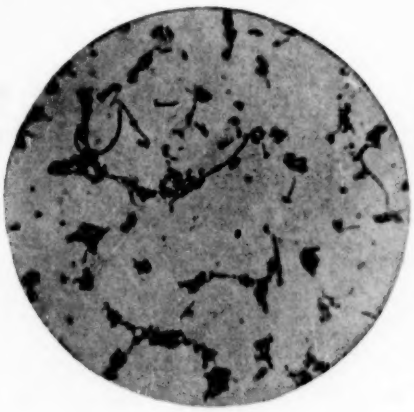

FIG. 1.

FIG. 2.

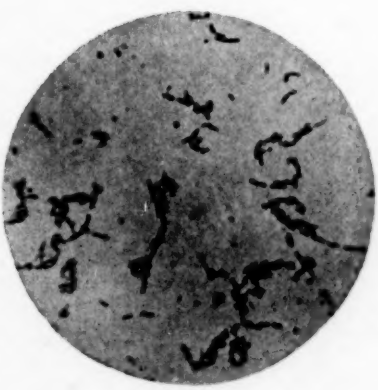

FIG. 3.

WOMEN NURSES ON WARDS FOR MEN IN HOSPITALS FOR THE INSANE.[1]

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From a purely theoretical point of view the employment of women nurses as far as is practicable on men's wards in hospitals for the insane would seem to be desirable. For women are better housekeepers than men; they possess as a rule the nursing instinct to a far greater degree than men; they exercise a refining and restraining moral influence that is not possible for the average male nurse to exercise over those of the same sex; and it is possible for a woman to render an environment homelike and attractive in a way wholly impossible of attainment by the average male nurse.

Theoretically speaking, I have for years been a believer in the presence of women nurses on men's wards. *Practically*, the realization of such a service is in the ordinary hospital somewhat difficult of attainment. Location and ward construction oftentimes embarrass the employment of women on male wards. But the chief difficulty in the way of securing this most desirable result is the scarcity of good material. With abundance of nurses who are possessed of the nursing spirit, who are properly educated and trained in their profession and who are imbued with the general hospital spirit, I believe the employment of women nurses on men's wards would not only be comparatively easy, but would serve to secure the results we are all so anxious to see attained on our wards.

First as to the character of the wards and the class of men patients to whom such assignment of women nurses should be made. This is a matter of vital importance; for, on the proper selection of wards must largely depend the success of the measure. Every well regulated hospital for the insane will have a judicious classification of its patients. Such classification is

[1] Read at the sixty-second annual meeting of the American Medico-Psychological Association, Boston, Mass., June 12-15, 1906.

largely clinical and represents a careful study of the various types of insanity. There will be found among the many wards of the hospital the following that are especially noteworthy because they include the ordinary variations of mental disease most frequently met with in any aggregation of the insane:

1. The hospital ward for the reception of recent and acute cases. This is practically an observation ward. The case newly admitted is examined carefully by the physician, and, unless there are contra indications such as violent excitement, homicidal tendencies, or such peculiarities of speech or conduct as would render him objectionable to other patients is assigned to the observation ward where he can be placed in bed for a longer or shorter time and his case be carefully studied clinically.

2. The hospital ward for the physically sick and infirm insane patient. Here will be placed such patients as have some actual physical disability (non-contagious) either medical or surgical in character. The ideal hospital for the insane would have two such hospital wards—one containing the infirm demented patients who need bed treatment and care, and the other containing more intelligent patients needing bed care from some acute temporary medical or surgical disability.

3. The ward or wards for the quiet demented insane—those patients that are harmless and inoffensive, but needing supervision and tactful management to prevent, if possible, further lapsing into the automatism so characteristic of the dementing psychoses.

4. The wards for the various classes of the quiet chronic delusional insane. Among these patients will be found varying degrees of intelligence. Many will be bright, active and interested in games and the topics of the day. Others less active, more secretive and more or less demented. Systematized delusions will be found among this class, but not of the type of the dangerous paranoiac. Most hospitals for the insane have many wards for the reception of this large class of delusional insane patients who do not dement rapidly, who as a rule are in a stationary condition of mind, who are not homicidal nor dangerous, and who make up the large working class of the hospital. As a rule, this middle class of quiet chronic insane persons exhibits no vicious tendencies and generally discloses a habit of

mind that is not aggressive, but rather is subservient to direction and supervision. Varying degrees of extremely slowly progressing dementia characterize this class of patients.

5. The wards for the active and disturbed patients. Among these wards will be found the acute and chronic maniac, the paranoiacs with dangerous tendencies, the extremely destructive and untidy patients who are prone to denude themselves, soil their rooms and commit destructiveness generally.

6. The wards for the convalescent and most intelligent insane. Here will be found those patients who are really recovering from the acute psychoses or those who, if they cannot be said to be recoverable, are still so little demented as to be distinctly appreciative of all the amenities and diversions that make life enjoyable. Of course there are many subdivisions of these different classes, many merge into each other, many seem to be transitional, passing from one division to another, and yet in the main every alienist recognizes these six groups and in one way or another endeavors to so study his individual cases that he may place them in one or the other ward as best befits their mental status.

In which of these several divisions of insane patients can women nurses be employed to the best advantage? In a general way it may be stated that the smaller the hospital the easier of accomplishment is the employment of women nurses on men's wards. For, in the smaller hospital there is less crowding, the classification is simpler and more complete and the liability of dangerous and objectionable patients becoming misplaced is less likely. In the smaller hospital with fewer patients in the different groups the supervision can be closer, individual characteristics can be more clearly recognized and the dangers of a wrong classification minimized. In the crowded wards of a large hospital it must be admitted that there is always the liability of a male patient being placed in the wrong assemblage, thereby increasing the difficulty of locating women nurses and reducing the number of wards in which one would feel perfectly secure in assigning women nurses.

This very discussion of the employment of women nurses on men's wards, however, which is no longer a novelty and which is really attracting increased attention furnishes an interesting commentary on the changed attitude of alienists toward the es-

sential character of insanity and its management. Less than 50 years ago the idea of a woman nurse caring for insane men would have been scouted, and I well remember the time in my boyhood when it was deemed safer to have a married couple in charge of the ward for more disturbed women so that in case of a sudden outbreak a man would be near at hand to render necessary assistance. The very fact that women nurses are now employed on men's wards and that their more extended employment on such wards is receiving continued discussion testifies to the recognition of insanity as disease and its consequent management like other diseases.

To return to the matter more immediately under discussion—the class of patients to be cared for by women nurses and the condition of their employment. As a rule, when women nurses are assigned to men's wards I believe it is better to copy the methods in vogue in general hospitals. The woman nurse should be in charge and not a subordinate. She and her assistants should feel the responsibility of their position under the physician. The care of the ward and the detail of the nursing should devolve upon the women nurses of whom one is to be the head nurse. The head nurse must feel that she is the responsible one directing the work and reporting to the physician. There must of necessity be men attendants, but their position should be that of the general hospital orderly whose duty it will be to execute the orders of the head nurse and attend to such portion of the work as cannot be performed by women as bathing, shaving, attending to the toilet room and other details that would obviously devolve upon the man. By this method the women nurses feel the responsibility of their position. They recognize the importance of their duties, and the fact that the moral support of the hospital is back of them gives them confidence under conditions that would otherwise be embarrassing. When the nurse feels that the conduct of the ward and the care of the patients devolve upon her, that the physician in charge looks to her for the carrying out of all medical and ward instructions, then she recognizes the dignity of her position, and if she is a woman of force and character, she experiences no more difficulty in the management of her ward than does her sister nurse in the general hospital.

It is of little use to have women nurses on men's wards under

a head male attendant. To do satisfactory work the woman must be in charge herself, feel the responsibility as well as the assurance that such a sense of responsibility affords. Women are naturally better housekeepers than men, they are better nurses than men, but their qualifications never show for what they are worth unless the women are in the superior position and feel that they have the moral support of the hospital to aid them in the execution of their natural talents.

Neither is it advisable for a man and wife to be employed on the same ward. Unless the man is a nonentity, my experience has been that he will take the initiative, doing the very things it is desired the nurse should do, either for fear that his wife will be overworked or because he wishes to take the lead himself, thereby defeating the very purpose sought. I do not wish it inferred that I am not in favor of married people being employed in the wards because I believe that the securing of faithful married employes on the wards is one solution of the vexatious "help" problem so harassing to every superintendent. But I do feel that it is desirable that a man and his wife should be located in different wards and that the field of their respective labors should be entirely distinct.

Now as to the class of patients for which it is most desirable that women nurses should care. Of the six divisions above enumerated I think there is no question that women nurses can be employed to the greater advantage in the hospital reception ward, the hospital ward for the physically infirm insane patient, and the wards for the convalescent and most intelligent insane.

On the wards for the active and disturbed insane there is no doubt that women nurses had better not be employed. It may be a question whether it is desirable for women nurses to have charge of the wards for the quiet demented insane, and the quiet chronic delusional insane.

Personally, I am a strong believer in the admission hospital building with observation wards, examination rooms, electrical and hydro-therapeutic apartments—a building in fact equipped with every appliance for the thorough examination and treatment of mental disease. The new patient will receive his introduction to the hospital in this building, the whole atmosphere of which is that of the *hospital* rather than the *asylum*. He will be exam-

ined at the entrance office assigned to his bed in the observation ward or to a separate room adjoining the ward if circumstances so require. The head woman nurse will assist the physician in the examination and will locate the patient in the bed assigned. Her assistant women nurses will then have charge of the case. The initial bath will be given by the orderly and such special attention as may be required, but the nurses will see that the bed is attended to, the medicines administered, the diet given, the personal attentions supplied just as in the male wards of a general hospital. The great majority of new men patients will submit willingly to these attentions from women nurses, and as far as my limited experience goes will be impressed by the hospital spirit that pervades the place and the minisfrations of trained women nurses.

Of course some male patients will on admission prove to belong to the fifth or disturbed and violent class, if so they will immediately be assigned to their respective wards entirely independent of the hospital building. There may be dangerous paranoiacs obviously at very first sight unfitted and unsafe for the care of women nurses and these must necessarily have their proper consignment. But the large majority of admissions can with safety be placed in the hospital ward under the care and observation of women nurses with such assistance from an orderly as is necessary. Transfers later to other localities in the hospital may be necessary, but there are few cases that cannot be admitted, located, and cared for in the manner outlined. The moral effect of a first impression cannot be ignored, and that the ministrations of kindly nurses in an environment suggestive of the hospital rather than the mere house of detention, exerts a favorable influence upon the newcomer, there can be no doubt.

The presence of women nurses on the wards for the physically sick and infirm is, I believe, extremely desirable. The actual nursing of patients sick in bed is better done by women than men. Women can give the many little touches so grateful to the sick far more adroitly and easily than men. They will feed the sick in bed, keep the bed clean and free from wrinkles, and make the sick room or ward more attractive than is possible with the average male attendant. In every hospital for the insane, there are many cases of terminal dementia, some of whom are afflicted

with motorial disturbances. These cases must be cared for in bed and constitute a most difficult class to nurse. My personal experience has led me to feel that all these extremely demented patients, especially the senile dementias and the third stage paretics, receive far better care from women nurses than men. They keep the ward sweeter and cleaner, make the patients themselves more comfortable than is possible with men nurses and certainly comfort in a most gratifying manner the feelings of visiting relatives and friends, who are at once reassured when they see that women nurses have the immediate charge of the patients.

The presence of women nurses among convalescent men patients is, I believe, extremely desirable. They give better care to the ward than men. Men can polish floors, make the brass pipe shine, make excellent beds, but they invariably neglect the corners, the hidden places, unless carefully watched. Out of sight is out of mind with the average male attendant. On the other hand good women nurses are more thorough in the details of ward work—they have an innate capacity for making the rooms look attractive and homelike. But of even more importance than the fact that women are better housekeepers than men is the influence that their presence exerts over male patients of the convalescent and intelligent class. There is no doubt that good intelligent women on the ward do exercise a restraining influence over men—both patients and attendants. There will be a cessation of profanity, of the tendency to tell stories of the *double entendre* order and of a disposition to be rough and disorderly in the presence of intelligent women nurses. The men will exercise self-control, which in itself is a matter of remedial benefit to themselves as well as a contributing factor to the personal comfort of such patients as are naturally quiet and gentlemanly, and who would be greatly annoyed by the unrestrained conversation and hoidenishness of others who are not as well bred or so well mentally.

As to whether women nurses had better have charge of wards of the third and fourth-class of insane patients, viz.: the quiet, demented insane and the quiet, chronic delusional insane, may be a question admitting of some discussion. In the first place, among these two classes, there is no sick nursing to be done. These patients are usually able-bodied men with good appetites,

who sleep well, and who need such diversion as will tend to enlist their decadent energies in normal and useful directions thereby preventing further deterioration. The farm, the shop, games both out-door and in-door, mental occupation of some sort, according to the inclination and capacity of the patient, will furnish the various means of employing the minds of these patients. The nurse's duties with these classes will be limited therefore to ward management and such social and intellectual diversion as might naturally suggest itself. The nurse in her capacity as housekeeper would in all probability find her chief duty. If one were sure of enlisting the services of the right kind of woman one would undoubtedly derive great benefit from the influence of her good judgment and supervision over ward details, but the scope of her usefulness would be far less than in the hospital or convalescent ward.

There would be with these two classes the uncertainty of ever feeling quite sure of the patients' impulses and motives. Many of these patients are reticent. One never can tell what slumbering passion may be aroused. In all such patients inhibition is weakened; a suggestion through the avenues of the senses may be sufficient to kindle passions that might endanger the safety of the nurse. While such danger might be exceptional, everyone at all familiar with the insane must admit that it exists. This is another curtailment of the nurse's usefulness with either of these classes. I certainly should feel that in wards for these patients the constant presence of male attendants would be a necessity, and the question naturally arises whether under these conditions sufficient benefit to the insane patient will accrue to make the adoption of women nurses expedient. We must admit, however, that the influence of a good woman on the wards for such patients must be excellent in restraining attendants from being rough in conduct and language, as well as inhibiting patients from similar tendencies who are not too demented to be susceptible of such influence. It is obvious that not every woman nurse would be suited for such positions, that the selection must be made with great care, and that male attendants must always be present on such wards. The experiment is unquestionably worth trying.

One reason for placing women nurses on wards for male pa-

tients is the apparently steadily increasing difficulty of securing desirable men attendants. Each year witnesses a decreasing supply of competent men for these positions. Thirty years ago there were plenty of young men in the rural districts available for attendants upon the insane. The majority of these men came from good families, were temperate, desired steady employment, and under training displayed good judgment and made faithful, reliable attendants. The supply equalled, and indeed exceeded, the demand. To be sure, many intended to make the asylum the stepping stone to some other employment as soon as they had earned sufficient money to make a start in some definite occupation—but they were imbued with a well-defined purpose in life which made them desirable attendants as long as they remained in the institution. There were then as now men who would disgrace any position they might fill. But I think my confreres will agree with me that in those days the number of these undesirable men was far less than it is at the present time. The preponderance of really available good men rendered it possible to make good first selections out of applicants presenting themselves.

For the past few years the desirable young men seeking asylum positions have seemed to the writer appallingly few in number. The majority are shiftless, lazy, addicted to bad habits and apparently seek positions to tide them over a period of temporary pecuniary stress. Many of these constitute the asylum tramp class so familiar to every superintendent. These men travel about under assumed names, are utterly without honor or principle, remain in an institution long enough to contaminate the service and seem to have no definite ambition in life other than to evade honest work. A search for the causes of this ever-increasing number of inefficient young men would constitute an interesting sociological study. Whether the dearth of good men is due to the degeneracy of the rural stock out of which the applicants come, whether it is due to a certain spirit of the times under the influence of which young men prefer sport and idleness rather than steady and definite employment, or whether again it is to be sought in the multiplicity of desirable positions constantly opening up and which enlists all the desirable men, leaving the inefficient—the fact remains that the number of available good men for attendants seems to be surely diminishing. For this

reason, if no other, the placing of women nurses on wards for men has seemed to the writer one solution of a difficult problem.

The training school for men nurses has not been so productive of good results as similar training for women. In the first place men are not attracted to professional nursing as a life-long employment. Few men are adapted to this kind of work. The demand for male nurses outside of an institution is comparatively small. The incentive, therefore, for men to train themselves for professional nurses is slight. For these reasons it cannot be expected that advertised training schools for men will be likely to attract to the service any number of desirable men. On the other hand training schools for women nurses in hospitals for the insane have been eminently satisfactory. They have introduced a higher standard, a more efficient service, and out of this intelligent body of well trained women it is to be presumed that a correspondingly efficient nursing force can be placed on certain male wards in the manner previously outlined.

This subject of the placing of women nurses on wards for men has recently attracted some attention among our Scotch brethren, and the arguments pro and con have been spiritedly discussed in recent numbers of the Journal of Mental Science. Scotch psychiatrists are eminently practical in the management of their asylums, they have always manifested a studious desire to benefit the patient and to guard against submergence of the needs of the individual patient in the routine management of a large hospital. Whatever they may say, therefore, concerning one of the most important phases of institution management is manifestly of interest.

In the October number for 1903 of the Journal of Mental Science is an instructive article on "Female Nursing of Male Patients," by Dr. Turnbull. He advocates the nursing of male patients by women nurses in the convalescent wards, in the wards for bed patients, and the placing of women night nurses in the convalescent wards. He says: "The difficulties which one looks for in dealing in this way with male insane patients have vanished when put to the test of practice; the care of the patients has been greatly improved; the patients, as a rule, appreciate what is done for them, and submit readily to be guided by the nurses; and the nurses take readily to the work and find pleasure

in it—and, indeed, they often say that the male sick room is more easily managed than any of the wards on the female side. It accentuates the feeling that there is really nursing to be done in asylum duty."

Dr. Turnbull's views met with general endorsement in the discussion of his paper with two or three exceptions. One objection was that women nurses on men's wards would be likely to sexually excite the patients to such a degree as to be detrimental to their welfare. Another objection was that if the head positions on wards for men were filled by women nurses promotion for men would be debarred and training for male nurses would necessarily become abolished, and as a result an inferior class of male attendants would be attracted to the service. Another objection offered was that hospitals for general diseases and asylums were entirely distinct institutions, that they could not be run on the same lines, that the attempt to consider insanity as a bodily ailment and undertake its nursing with women nurses as in a general hospital was an absurdity and an exemplification of what the speaker declared "to be a part of this great fad that has come over us to run everything on hospital lines." One speaker thought economy might be an argument in favor of the adoption of women nurses on men's wards for the reason that women could be employed at a lower rate than men. One writer advocates "the opening of a small ward staffed by men where all male cases are admitted and passed on to the wards staffed by women as soon as is judged right." He is led to this conclusion because there are always in the hospital certain male cases who in the presence of women will become erotic, or who may become violent toward other male patients, and the women nurses are not physically strong enough to come between the patients, separate them and prevent serious conflicts. The general consensus of opinion, however, in Scotland would seem to be in favor of the employment of women nurses on men's wards as far as is practicable.

Concerning the points brought out in the discussion, it is questionable whether the danger of sexual excitement has not been exaggerated. With reasonable care such patients can be eliminated from the wards staffed by women nurses. The danger is not sufficiently great nor frequent to lead to the abolition of

the better care and good moral results attendant upon the presence of women nurses.

It is doubtful whether the employment of women will effect a greater economy. For the head nurses must be graduates of the very best type and ought to command as good wages as men. It is quite likely that the employment of these head nurses and their assistants together with the necessary orderlies will bring the cost of ward management up to as high a figure as if there were only men attendants. Motives of economy should not lead us to staff men's wards with women nurses, but rather the desire for a better service independent of the pecuniary item.

Neither do I have any sympathy with the attempt to decry the hospital idea on the ground that it is a mere passing fad. If anything has been established by the experience of the last few years it is the fact that insanity is disease. As far as is practicable insanity should be managed like any other disease. Wherever and whenever it is possible patients thus afflicted should be accorded the same skilful care and kindly nursing that is accorded any ailment. The hospital treatment of insanity is not a fad, and that the nursing of this disease should proceed as far as is possible on the lines of the hospital nursing of general sickness is to my mind an evidence of our better understanding of the real character of mental alienation.

The idea that the employment of women nurses on wards for men will discourage desirable male attendants from seeking these positions, and that as a result the character of the latter will deteriorate, will not in my estimation hold true in the United States. As previously mentioned, good male attendants are none too common in this country. It is because too few really good men are attracted into this service that good trained women nurses are desired. Experience has already demonstrated that trained women nurses on the male wards not only leads to better care of the patients, but that their presence has been a positive benefit to the men attendants themselves. Unless I am very greatly mistaken, an intelligent women-nursing staff on selected male wards will result in a better morale among the male attendants and a greatly improved condition in the patients.

My own personal experience has thus far extended to the employment of women in the convalescent building, the hospital

ward and the summer cottage occupied by quiet, intelligent male patients of the chronic class. The results have been so gratifying that an extension of this service seems not only feasible but eminently desirable along the lines suggested in the earlier pages of this paper. The subject is not new. Many institutions have for some years had men's wards staffed with women. Still the employment of women nurses on wards for men has not by any means become general. The institutions adopting this system of nursing are the exception. Has not general experience demonstrated its practicability and has not the time arrived when it is desirable that every well appointed hospital for the insane should have certain wards for its men patients staffed with women nurses?

In conclusion I must repeat that when women nurses are placed on wards for men, I believe that they should occupy not a subordinate position. They should have charge of the ward and its management, the medical officer should give his orders to the head nurse, and she and her assistant nurses should be held responsible for their execution. The selection of these nurses is important. Not every woman is fitted for these places. Only such nurses as are thoroughly imbued with the hospital spirit, are dignified and possessed of superior judgment, tact and nursing qualifications should be selected for these important positions. With judicious selection of the proper individuals I feel that the employment of women nurses on the sick wards, the admission wards and the convalescent wards, will be attended with the very best results, and the extension of the service to wards for quiet chronic and only partially demented men, while not so sure of success, is certainly worthy of trial.

THE MALE NURSE.[1]

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Men are employed in the care of the sick—in general hospitals chiefly as servants of the women nurses, in hospitals for the insane as attendants or nurses for the men patients, and in private families for certain cases. Is there a need for such service? Is it satisfactory? If not, what can be done to improve it?

There is no question that men are needed in the care of the sick in general hospitals, to move patients from place to place, *e. g.*, to and from the operating-room, to give baths to men for cleanliness or for therapeutic purposes, to assist them in the use of urinals and bed-pans, to give enemata, to prepare them for certain operations, to change certain dressings, in exceptional instances to pass the catheter and wash out the bladder, and for other like service which is more properly rendered by a man than by a young woman.

There would also seem to be a similar need for his services occasionally in the care of those sick of acute general diseases in their homes when strength is required—of old men who are partially helpless, of genito-urinary cases, of active delirium, and especially of insanity. The home treatment of the insane has increased considerably in the last 15 or 20 years, and there probably would be a still greater demand for men nurses for this work if an adequate, a satisfactory and not too expensive supply were available.

In hospitals for the insane there is an increasing tendency to employ women nurses in the men's wards. There is no doubt that this can be done more extensively than has been the custom heretofore except in a few hospitals, perhaps to the greatest advantage in reception wards, in those for the physically sick and infirm, and for the convalescent. The benefits of such service are many and some can scarcely be over-estimated. Among them

[1] Read at the sixty-second annual meeting of the American Medico-Psychological Association, Boston, Mass., June 12-15, 1906.

are the better and more attractive serving of food; the making of special articles of diet for the sick; economy of hospital property; better housekeeping generally and a more domestic atmosphere to the wards which contributes to comfort and contentment; the entertainment of patients; the more careful supervision of their clothing; the prevention of a tendency to degeneration in dress, conduct and conversation which is certain to result when men are associated without the presence of women; the more natural fitness of women for nursing because of their motherly instinct and their readiness to respond to the appeal of sickness and suffering; the giving a greater prominence to the hospital idea and the corresponding lessening of the custodial feature of hospital life; the tendency to prevent harsh treatment of patients; the reassuring effect on the friends of patients, and the tendency to lessen the distrust and prejudice which the public has toward hospitals for the insane. The employment of women also offers a partial solution of the problem of securing an adequate number of satisfactory men for nurses in these hospitals.

The argument that modesty would forbid placing an infirmary ward in the charge of women might be made with nearly equal fairness against the nursing of men by women under any conditions. The nurse learns things and has experiences in her vocation, from which young women in ordinary life are most carefully shielded, but she should not be subjected to the ordeal of trying to care for the highly excited and wholly irresponsible; certain erotic patients; the very untidy, who require frequent tub baths and changes of clothing; or the more intelligent but actively suicidal men who must be under constant observation, especially while bathing; neither is it fitting that she should be the nurse or companion of those patients who engage much in out-of-door games or who take frequent excursions from the hospitals, sometimes of several days or weeks duration; nor can she take charge of working patients. It is more appropriate for women to direct and nurse men sick of bodily disease, confined to the bed, who are to be under their care but a short time, than to live intimately associated with, and to have the sole direction and personal care of, men who are physically well, who stay in the hospital a long time, perhaps the remainder of their lives, and who need only a judicious direction of their conduct rather than

nursing for bodily illness. The employment of women in infirmary and reception wards of hospitals for the insane is very similar to their employment in the male wards of general hospitals.

But while one might question the propriety and advantage of placing women in charge of the larger number of men in a hospital for the insane, the beneficent effects of her presence in the wards with these patients may be obtained without holding her responsible for their personal care.

At the McLean Hospital, where there are rarely enough bodily-sick patients who can properly be associated to fill an infirmary ward, women have been employed to assist in the care of men for 29 years. At present there is but one ward, that for the most excited patients, which has not its graduate woman nurse with a ward-maid to assist her. She is responsible for the domestic affairs of the ward—has charge of the dining and serving rooms and the supervision of the housekeeping generally; she makes special articles of diet for sick patients, looks after the laundry, makes little repairs of clothing, sees that the clothing of each patient actually on hand corresponds with the list kept in each ward, assists in the nursing of patients confined to their beds; also in entertaining the men, with some of whom she walks on the grounds, drives and plays golf.

A man has charge of the ward and is responsible for the personal care of the patients. The woman is responsible only for her part of the work, which is that of woman in the home, and her criticisms of the assistant male nurses are made through the head nurse to the supervisor. This division of service has existed from the beginning and has been found satisfactory for the needs of this particular hospital.

It would appear then that after the possibility of the advantageous employment of women in the men's wards is exhausted there still is need of men nurses.

For the purpose of ascertaining the character of the work done by men a circular letter was sent to many hospitals and to directories for nurses, some of whom have men on their registers. To the question, "Have you difficulty in securing a satisfactory class of men?" answers were received from 79 general hospitals and from 144 hospitals for the insane.

General Hospitals.

	Difficulty	No Difficulty
With schools for women only	47	11
With schools for men and women	18	3
	65	14

Hospitals for the Insane.

	Difficulty	No Difficulty
With schools for women only	9	1
With schools for women, some instruction given men	9	2
With schools for men and women	44	18
With no schools for men or women	35	26
	97	47

It would appear from this table that there is considerable difficulty in securing a satisfactory class of men for hospital work but that hospitals without schools for men have less difficulty than those that have such schools or are less exacting in their requirements. Most general hospitals did not answer this question, thinking it sufficient to say that they employed no male nurses, the orderlies not being reckoned as such.

Why so many reported difficulty in securing satisfactory men may be indicated perhaps by a list of the reasons assigned for the consecutive discharge of 765 men by 19 hospitals for the insane.

Intoxication	197
Abuse of patients	132
Away without permission	66
Insubordinate	61
Undesirable	59
Disobedient	57
Sleeping on duty	47
Theft	28
Untrustworthy	27
Unsatisfactory	21
Negligent	19
Untruthful	15
Unfaithful	11
Immoral	11
Entered service under false name	8
Aiding patients to escape	4
Drug habit	2

It will be seen from these figures that the larger number were discharged because of bad character and habits. During the same period 199 left the service without due notice of their intention.

It is no doubt true that as a rule the men who engage or attempt to engage in nursing the sick are not so satisfactory as the women. Making all due allowance for a lack of natural qualifications as compared with women there still are objections based on lack of education and refinement and on their character and habits, which make some men impossible as candidates for the nursing profession.

At the McLean Hospital during a period of four years, 1902-1905, 79 men out of 157 probationers and accepted candidates in the training school left for various reasons before the completion of the course of study, while during the same period only 32 out of 155 women failed to graduate.

The inquiry sent to directories for nurses to ascertain the quality of service given the public by men nurses, who have survived the discipline of the hospital schools and who have also met their educational requirements, brought answers to the question, "Are their services generally satisfactory?" from 25 directories who had male nurses on their list and from five others who had had experience with them. Twenty-three of these answers were in the affirmative and seven in the negative. Since directories usually receive reports from families as to the character of the work done by nurses whom they supply, they would most certainly know of any serious complaints. It should be said that not all of these men were graduates of any school, since some directories register as experienced nurses those who have served one year in a hospital, and as graduates those who have had a two years' service, without regard to the question of graduation or even of instruction in a school.

These answers indicate, so far as they have value, that the average graduate male nurse of to-day renders the public fairly satisfactory service, which could indeed be improved, but which probably is much better than the hospitals themselves receive from their attendants, who are not instructed, and from the pupil nurses in their schools.

It is a common complaint from superintendents of hospitals for the insane that in applying for this work many of the men do not

intend to make it a calling or profession but merely a stepping-stone to something else; that they simply want a "job," have no real interest in the work and look upon any systematic instruction as an accident of the service, to be tolerated but not desired. Some go from hospital to hospital seeking an easy place; and while they acquire some knowledge of the duties of a nurse they may at the same time have learned methods which no good hospital would wish introduced into its service.

In view of the evidence already presented there can be no doubt that something should be done to raise the standard of the male nurse. I do not wish to be understood as saying that hospitals do not have many good men. They do; but there are many who prove unsatisfactory and the problem is how more of the good men can be induced to take up the work. It is something, and a necessary step, to offer them an education in nursing, but this is not enough; they should also have the assurance that after acquiring such an education they have before them an adequate career.

To learn something of the opportunity a young man now has in this country to acquire a nurse's education and training, a circular letter was sent to which replies were received from:

General Hospitals.		
With schools for women only	223	
[1] With schools for men and women	22	245
Hospitals for the Insane.		
With schools for women only	10	
With schools for women, in which some instruction is given men by text-books and lectures	11	
With schools for women—schools for men discontinued	2	
[1] With schools for men and women	62	
With no school for men or women	66	151

[1] The U. S. Bureau of Education, 1903-4, reports 668 hospital schools, not for the insane, with 61,587 beds, having 14,408 women pupil nurses, an unspecified number of them having 673 men pupils; also 56 hospitals for insane, epileptic and feeble-minded with 69,343 beds, having 1644 women pupil nurses and, in 54 of them, 988 men pupils.

Four of the general hospital schools for women give lectures to their orderlies; four formerly did, but have discontinued it; and five propose to give systematic instruction in the near future.

While it was necessary for private enterprise and benevolence to begin the work of training nurses and demonstrate its value to hospitals and to the public, there are few such independently organized schools in the country to-day. The work is now chiefly in the hands of schools organized and maintained by the hospitals themselves for the education of their own nurses and for the advantage of their patients. Let no one think, however, that this is a matter of economy for the hospital. The women pupils, to be sure, are individually paid less money while receiving their instruction than was formerly paid, but more nurses are required to allow them time for study and to put in practice the refinements of nursing which are now taught; teachers for special branches must be paid; graduates receive more money than formerly; so that the total cost of the nursing service is greater than before the establishment of schools.

The work was begun in general hospitals but in them it has been confined chiefly to the women, although so large a proportion of these hospitals have difficulty in securing satisfactory men. Most of the 22 general hospitals who responded to my questions and who offer a course of instruction for men such as they give women, with certain obvious exceptions, are of small size and have few pupils. The only notable instance of a school for men in a general hospital is that of the Bellevue Hospital in New York.

General Hospital Schools for Men and Women.

Location	No. Hospitals	No. Beds	No. Women Pupils	No. Men Pupils
Maine	1	50	16	1
New Hampshire	1	35	15	1
Massachusetts	1	230	82	2
New York	4	765	143	76
Pennsylvania	3	650	88	17
Alabama	1	30	20	5
Michigan	2	225	68	11
Minnesota	1	50	20	2
Colorado	1	100	12	6
Washington	1	50	12	1
California	6	1150	239	26
	22	3335	715	149

intend to make it a calling or profession but merely a stepping-stone to something else; that they simply want a "job," have no real interest in the work and look upon any systematic instruction as an accident of the service, to be tolerated but not desired. Some go from hospital to hospital seeking an easy place; and while they acquire some knowledge of the duties of a nurse they may at the same time have learned methods which no good hospital would wish introduced into its service.

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California	6	1150	239	26
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Instruction of the men in the service of the hospital is compulsory in 15, voluntary in seven. The length of the course of study is two years in 11, two and a half years in one, and three years in ten. Three of the schools giving a two years' course to men give a three years' course to women. The money compensation in these schools varies from $4 to $25 a month; the average minimum being $8.73, the average maximum $13.71. For orderlies in the general hospitals, who answered the question, the pay was from $10 to $45, the average minimum being $19.40, the average maximum $25.90. In general hospitals the orderlies as a rule are addressed by their given names. So long as they are Mike, John and Harry, so long will they be merely servants and porters.

The men in hospitals for the insane have more responsibility and do a higher kind of work. The advantage of giving them systematic class instruction was early appreciated, although the work was begun with women as in general hospitals. It has been extended until to-day it stands, so nearly as I can ascertain, as stated in the foregoing table.

The dates of establishment of these 62 schools for men and women are as follows:

1882, 1; '84, 1; '86, 1; '87, 2; '88, 3; '89, 3; '90, 1; '91, 3; '93, 2; '94, 4; '95, 3; '96, 10; '97, 4; '98, 2; '00, 4; '01, 4; '02, 3; '03, 5; '04, 4; '05, 1; '06, 1.

The number of men nurses employed in these hospitals is about 3650. In 32 the instruction is compulsory for all who enter the service of the hospital; in 30 it is voluntary for the men, although in nearly all it is compulsory for women.

The length of the course of study is two years in 56, and three years in six. Formal instruction is given during the two years' course for six months in five, seven months in 13, eight months in 14, nine months in one, ten months in one, and for an unannounced time in 22. Five of the schools giving a three years' course do not announce the number of months' instructions in each year and the third year is optional. In one, instruction is given for eight months of each year.

A diploma is given by 56 and a certificate of proficiency by three, while three give nothing as evidence of completion of a course of study.

Money compensation in the 62 hospitals with schools for men and women varies from $14 to $50.62 a month, the average minimum being $22, the average maximum $33. In the 11 hospitals with schools for women in which some instruction is given men by text-books and lectures the pay varies from $15 to $50, the average minimum being $25.10, the average maximum $33.63. In the 66 hospitals with no schools for men or women it varies from $10.50 to $55; average minimum, $23; average maximum, $33.

An attempt was made to ascertain the amount and character of the instruction given in the various schools of the country in hospitals for the insane, but it is practically impossible to learn accurately from the written replies and the printed announcements received, even the number of hours instruction given and of its quality one can learn less—indeed practically nothing. One's estimate of this must be merely a matter of inference from the names and positions of the instructors in the schools.

There is not the uniformity here in regard to this that there is in Great Britain, where the Medico-Psychological Association has prescribed a course of instruction for all schools in hospitals for the insane in the United Kingdom. The regulations[1] of the Medico-Psychological Association of Great Britain and Ireland for "the training and examination of candidates for the certificate of proficiency in nursing and attending on the insane" require, with few exceptions, that "every attendant must be trained in an institution for the treatment of mental disorder for not less than two years," including the probationary period of three months. The system of training includes: "(a) Systematic lectures and demonstrations by the medical staff of the institution. At least 12 lectures, each of one hour's duration, must be given in each year of training; and no attendant will be admitted to examination who has not attended at least nine lectures in each year. (b) Clinical instruction in the wards by medical staff. (c) Exercises under the head and charge attendants in the practice of nursing and attendance on the insane. (d) Study of the 'Hand-Book of Nursing' issued by the association. Other books may be used in addition. (e) Periodical examinations, the nature and frequency of which are left to the discretion of the superintendent,

[1] Jour. Mental Sci., April, 1904.

but one examination at least should be held in each year. The scope of training must be such as to impart a knowledge (1) of the main outlines of bodily structure and function, sufficient to enable attendants to understand the principles of nursing and of 'first aid,' especially with regard to the accidents and injuries most likely to occur among the insane; (2) of the general features and varieties of mental disorder; (3) of the ordinary requirements of sick nursing, and especially of the requirements of nursing and attending on the insane." Provision is also made for regular examinations to be held twice yearly at every institution in which there are candidates for certificates of proficiency. These examinations are partly written, partly oral and practical. The questions for written examinations are prepared by the examiners in nursing appointed by the association. The oral and practical examinations are conducted by the superintendent of the hospital and a co-adjutor, who shall take at least as great a share in the actual examination as does the superintendent. Later in the year (1904) the length of the course of instruction was increased to three years.

There is in this country as yet no such uniformity of instruction and no one central examining board. Boards for the examination and registration of nurses are being established in some States and may in time take the place in every State of the Central Examining Board of Great Britain and Ireland. The maintenance by law of a minimum of requirement for the State registration of nurses will tend to raise the standard of education in all the training schools of the country, and this appears to be one of the chief reasons for the establishment of these boards of registration.

There is no doubt that most schools in the United States give more instruction to their pupils than do the English and Scottish schools. As in Great Britain, much of the instruction is given by the hospital staff, which is something of a tax on their time, but there are compensating advantages in an increase of interest and knowledge on the part of the staff, a better study of cases if they are to be used for demonstration, and a more accurate knowledge of the capacity of the nurses than could otherwise be obtained.

In schools of good standing a lecture and also a recitation from

some text-book are required each week. In addition to this there are various demonstrations in practical nursing which come at irregular intervals, the exact number of which could not be ascertained from the answers to a letter of inquiry.

The subjects generally taught are: Anatomy, physiology, hygiene, bacteriology, nervous diseases and insanity and their nursing care; general medical and surgical diseases with their nursing care, accidents and emergencies, materia medica, food and dietetics, and the observation and recording of symptoms. In addition to this many schools give practical instruction in bandaging, preparation of the sick-room, the operating room and of the patient for operation; physical training, massage, hydrotherapy, electricity and urinalysis. It would appear from this that the schools in the United States give a somewhat wider range of instruction than is given in similar schools in Great Britain, although it is by no means certain that the instruction is more thorough or that the nurses are more competent in their work. Nurses are wanted, and are valued not so much for their theoretical knowledge as for the quality of service they can render, and if any criticism is to be made of our present methods of training it is that we teach too much theory, give too many lectures and hear too many recitations, and give too little of the practical demonstration which is needed, together with sufficient theory and explanation so that the nurse can do his work intelligently, and may know why he does it in a certain way rather than in any other. So far as is possible such demonstrations should be given the nurses in the wards, and they should have an opportunity to practice the instruction received under the eye of the teacher. Such matters as the making of beds for different purposes, the care of patients' rooms, of the toilets, of various utensils, of sinks, dining-rooms, serving-rooms, the proper serving of food, the care of patient's clothing and of the patients themselves, must of course be demonstrated. But the nurse also should be taught cooking in the kitchen, knowledge of drugs in the dispensary, urinalysis in the laboratory, and any knowledge of physical training, massage, hydrotherapy, bandaging and the like, which is not taught practically is almost worthless. While talking about the normal mind and insanity, it is of the greatest assistance to a correct understanding and appreciation of the subject to

assign patients to be observed and reported upon as to the condition of their mental states. Patients should also be used to show the different forms of mental disease, as would be done at a clinic for medical students. Nurses have the patients constantly before them in the wards and have a better opportunity for observation than the physician. They should therefore be taught how to observe, what to observe, and how to record their observations for the physician's use.

In most hospitals for the insane the opportunity for nursing cases of general medical and surgical diseases is quite limited. Some schools are able to provide such experience for their pupils by arrangement with a neighboring general hospital. Such is now a part of the course in the McLean Hospital school. All of its women, and those of the men who so elect, spend eight months of the three years' course in the school of the Massachusetts General Hospital in Boston.

The object of our training schools is to provide competent nurses for service of the hospital and incidentally of the public. The more capable and satisfactory the graduates, the sooner will come the time when men as well as women will be induced by a public demand to make it a vocation; while every incompetent male nurse graduated tends to perpetuate and extend the bad reputation which unfortunately he has formerly had.

Even now the man's position is better than was that of the woman nurse before the establishment of training schools.

Forty-six of the 62 hospitals with schools for men reported in regard to the success of their graduates in private nursing as follows:

No difficulty in getting work	21
Difficulty in getting work	2
Few attempt private nursing	12
Some go into other business	5
Most go into other business	6
	46

That the male nurse has not yet an assured career is shown by his lack of eagerness for the instruction; by the fact that in one-half the hospitals it has been thought necessary to make instruction in the training school voluntary, while in most of

these same hospitals it is compulsory for the women; that some general hospital schools give a two years' course to men and three years' to women. It also is shown by the necessity of paying him nearly as much while getting his education as is paid the men employed in hospitals without schools. When there is a more general appreciation of such a course of study he will be glad to accept a much smaller money compensation, as are the women in the general hospital schools who are paid much less than formerly, and who in some general hospitals give their time and service for the instruction received, in exceptional instances even paying a tuition fee of from $50 to $350 for the course. This time has not yet come, but I have faith to believe that there is to be a wider field for the male nurse in private practice. There are many now who receive from $25 to $35 a week and who are spoken of in terms of commendation by physicians and families.

Do the graduates of schools remain in the service of the hospital? Answers were received from 54 of the 62 schools as follows:

All remain in the service	4
Most remain in the service	12
Many remain in the service	10
Some remain in the service	16
Most leave the service	12
	54

At the McLean Hospital there is such a demand for the graduates of its school that it is difficult to keep enough for head-nurses of the wards. Aside from the pecuniary attraction of private nursing many of the best men study medicine or dentistry, or find some other work more congenial, with less of the restrictions which are thought necessary for hospital discipline, more home life, and better pay.

To keep the men needed for the places of head nurses it would seem necessary to give them a thorough knowledge of their work which only can make it attractive and enable them to bear with equanimity the annoyances incident to the care of such patients; dignify their position by giving charge of all the men's wards to men and not to women; pay enough to make the position

attractive; allow them to marry and live outside the hospital, furnishing them on the grounds of the hospital or in the immediate vicinity comfortable tenements at a moderate rental. It is the custom in England and Scotland more than in this country for hospitals to build houses for their nurses and employees. In 1903 the Lanark District Asylum, in Scotland, with 35 such cottages claims to have solved the difficulty of keeping good men.

There is nothing more to be desired by a hospital for the insane than a permanent corps of head nurses, who would be loyal officers of the hospital, who would give character to the service, and who would be capable of giving valuable instruction to the pupil nurses.

NIGHT NURSES FOR THE INSANE.[1]

By C. R. WOODSON, M. D.,
Medical Superintendent Missouri State Hospital No. 2, St. Joseph, Mo.

From November, 1874, the time at which Missouri State Hospital No. 2 was opened for the reception of patients, until the first day of January, 1897, the institution had not been provided with night nurses, but had been provided with night watches, varying in number from two to eight. The duty of the night watch was to make a round hourly, sometimes oftener, and possibly in many instances, not so often. The night watch was supposed to pass through every hall or ward at least once an hour, and carried with him or her a kerosene lantern. When not making rounds, they were supposed to be in the administration building. As a result of such service, suicides were not infrequent. Death from exhaustion of maniacal patients was quite common. The morbidly suspicious were greatly intimidated, and in many instances made miserable from being locked in a room. The sick could not receive proper attention, the violent were not controlled as they should have been, and a generally inefficient and unsatisfactory service was rendered.

On the first day of January, 1897, the night force was increased from eight to thirty-five. Since that time, as much or more effort has been made to provide a full quota of night nurses as a full day force. In fact, if it becomes necessary to have a short force, either at night or day, we invariably drop off some member of the day force, that the night force may be kept intact.

Since the inauguration of this system, the first thing we did was to do away with all of the inside locks. It was soon found that that was not satisfactory, and the major part of the inside doors were removed. We continued to remove doors until the present time. With a population of about 1400 patients, we have about 30 inside doors, and these are for single rooms. So satisfactory were the results following the removal of the doors

[1] Read at the sixty-second annual meeting of the American Medico-Psychological Association, Boston, Mass., June 12-15, 1906.

that in the erection of buildings during the last six years, we have discontinued the inside door. In fact, we do not use an inside door frame, but finish over the rounded brick with plaster. The atmosphere following this change has been greatly improved, as the abominable chamber has been wholly discarded. Patients have as free access to the toilet rooms at night as during the day. It is exceedingly rare that a patient becomes violent, and they seldom become violent enough to be placed in a room with a door for a single night. I make freely the declaration that there are not three inside doors closed in State Hospital No. 2 any night in the year. There is one night nurse on each violent ward, and one night nurse on each hospital ward. On quiet wards, in some instances, the night nurse looks after two wards. The doors for the entire flat of the respective sides are left open, and it is seldom necessary for one nurse to have to leave his service to assist another.

In my early hospital experience, superintendents were trying to find some light material for chambers, so they could not be used as offensive or defensive weapons. Every hospital man is cognizant of the fact that the heavy chamber is very objectionable, but the weight is far less objectionable than other things which could be mentioned.

The idea of locking one, two, three, four, five, six, seven, or eight patients in a room or dormitory, expecting patients to remain quiet, to sleep well, and to get well, is not only absurd, but is inhuman. The morbidly suspicious should certainly not be blamed for imagining that there was danger when locked up in a remote room of an institution with those who may or will domineer over them. The foul atmosphere associated with closed doors and the use of chambers, and the numerous contused wounds, as a result of such method, are justly entitled to condemnation in unmeasured terms.

The presence of the night nurse upon the reception of a case of acute mania is highly important, as these cases, under appropriate treatment, furnish a large percentage of recoveries, and lack of timely attention increases our death rate. A timely word to the violent from the vigilant and prudent night nurse is equally important.

Since the inauguration of this system during the period of nine

years and four months, there have been three suicides in State Hospital No. 2, and two of these were due to the carelessness of the night nurses. With a good nurse the sick and feeble receive proper attention, and a suitable temperature of the various apartments is maintained. Patients sleep better, are better satisfied, more easily controlled, and get well more quickly. A warm midnight meal is served on the respective wards for each nurse, and instructions are given to feed patients who have been eating irregularly or unsatisfactorily, and the nurse tries to persuade such patients to partake of a midnight meal. We have not found it necessary to have more than one nurse on a violent ward. Patients are not awakened by the opening of doors or the flash of the lantern in their faces. A 16-candle power incandescent electric light burns at the end of each hall and in each alcove. The rear halls and toilet rooms are as light as day. Attacks from violent patients upon the night nurses are not one-tenth as often as upon the old so-called night watch. Contused wounds are a thing of the past.

I have heard some superintendents make the remark that the patients' in their institutions were too violent for the open door system. The fact that the patient has liberties and privileges, of itself, tends to lessen the violence of the patient. The fact that the patient can get up and go to the toilet-room when he wants to, get a drink of water, or even get up and look down the hall, is a source of satisfaction; it makes him less rebellious, less obstinate, and less violent. The fact is, a common cur may be chained up till he becomes as vicious as a bull-dog, but let him have an opportunity to expend his pent-up forces, give him freedom, and little children may play with him with impunity.

Having some one with insane patients day and night, dealing firmly, yet kindly and gently, has a subduing effect, and, I may add, that in enforcing this line of treatment we do not quiet the patients with motor depressants or hypnotics. We do not administer as may as two hypnotic medicines any night in the year. A warm bath, a cold bath; a warm pack, a cold pack; a glass of warm milk and mid-night meal; the care and attention of a skilled nurse are better than hypnotics, better than restraints, and better than closed doors.

THE TRAINING SCHOOL IN THE INSANE HOSPITAL.[1]

By EDWARD B. LANE, M. D.,
Late Medical Superintendent Boston Insane Hospital, Boston, Mass.

I assume no one will deny that an insane hospital is maintained primarily for the benefit of the public. Its first aim is to provide a safe place for those who would do harm if allowed their liberty and at the same time afford all remedial agents to restore every patient possible to the community. Our insane are peculiarly entitled to every consideration at the hands of the hospital authorities, the agents of that public who have taken great authority upon themselves in removing that patient from his home, usually against his will, and deprived him of his liberty by due process of law. The insane patient is confined not because he has wilfully violated the rights of society, but because as the result of disease, he has become unfit or unsafe to remain at large. It has always seemed to me that for this very reason our insane hospitals should be compelled to furnish the best of care, a skilled medical and nursing staff, abundant nourishing food, comfortable quarters and every remedial agent that is approved. Those who seek aid in general hospitals or almshouses do so voluntarily, because they believe they can be cared for better there than in their home surroundings. The public owes a peculiar debt to its insane wards which it may be said it cheerfully pays as a rule. The passing generation saw the care of the insane evolve from the jail and almshouse standards to the modern hospital, as we call it.

A number of philanthropic people, appalled at the prevalence of insanity in our midst, have earnestly advocated and attempted to put in practice the hospital method of caring for the insane. They urge upon us a rapid extension of the hospital methods and the adoption of the externals of the general hospital. With this reform our insane hospitals have adopted training schools for nurses. While a few insane hospitals have been born with train-

[1] Read at the sixty-second annual meeting of the American Medico-Psychological Association, Boston, Mass., June 12-15, 1906.

ing schools, more have achieved training schools, and many have had training schools thrust upon them. We now have "wards" for "halls," "nurses" instead of "attendants," "sleep charts" for night reports, etc. This movement is a good one, and I hope to see even further progress made in the same direction. The presence of the terrible scourge of insanity will always stimulate the community to use every device for its cure or prevention.

I wish to discuss with you to-day, not the question of the propriety of training our nurses—for I think that has already been answered in the affirmative—but the details of adaptation of the general hospital training school to the needs of the insane hospital. From what I said as to the duty of the insane hospital to the public, it follows that the training school should be for the benefit of the patients in the hospital, and we must not let the zeal of the reformer lead to the error of regarding the hospitals as maintained for the benefit of the training schools.

I was much interested in listening a few years ago to a very able plea made by Dr. James Russell, of Hamilton, Ont., for the asylum *versus* hospital. Many present to-day will remember the Doctor's caution lest we make too hasty an adoption of the hospital. Let me quote a few sentences from him: "If the torchlight of science has burned with greater brilliancy within the hospital than within the asylum, whose fault is it? Is it not a confession of weakness to commit an act of grand larceny by assuming a name we have not earned and thus take a short cut to popular favor!"

Again he says: "I propose now to show that the word hospital in its modern application is a misnomer when applied to an institution for the insane, and that the future evolution of the asylum must be on educational and industrial lines instead of hospital methods." He then points out that in his own hospital only 5 per cent require strictly hospital treatment, and 20 per cent, while physically healthy, are possibly curable, leaving 75 per cent as incurable, and later he says: "In all our large asylums there is a perfect Niagara of mental and physical force going to waste, and how to utilize this force from an economical and psychological standpoint is the great and burning question which confronts us to-day."

We must all agree that the strictly hospital work in our institutions is a small affair. It is important and often hitherto perforce slighted. Now the larger hospitals have well equipped infirmary wards, but practical difficulty in classifying our sick insane has hindered the development of a special hospital department. The American public is utilitarian, and is willing to spend money if that will cure the insane in our hospitals, but hesitate to provide so expensive quarters for those incurably ill. But we all know that curable or incurable the sick patient needs a great deal of attention and must have it. It is also true that many of the sickest curable cases, for a time, must be treated in the wards for extremely disturbed cases. Even could we diagnose the curable from the incurable on admission, what practical advantage would there be in maintaining duplicate wards for the two classes. I would have the infirmary in the insane hospital in charge of a nurse who had had experience in both an insane and a general hospital. This ward would attract pupil nurses who would learn there the essentials of sick nursing. And the nurse who acquits herself well in such a ward with its peculiarly difficult work has acquired a valuable experience. She will find herself equipped for a useful career in private practice in nursing medical cases. But with not over 10 per cent in our infirmaries, how are all our nurses going to get that experience? And this brings me to the first difficulty in the training school for insane hospitals. The inexperienced applicant is misled by the term hospital training school and is disappointed when she finds 90 per cent of her work in the school is with the physically well. This objection has long been met by an arrangement whereby those ambitious for a wider experience may enter a general hospital for a brief supplementary course. This is an excellent thing where it can be done. But even then what inducement is there for a bright young woman to take half her course in an insane hospital when the general hospital offers her the full course of more interesting work in its own wards? Many hospitals for the insane have been unable to promise such a postgraduate course for our training school pupils, and I have seen several after spending two years in an insane hospital begin at the bottom in a general hospital.

It would seem that we in the insane hospitals must demonstrate

by our good work that we can furnish the general hospitals with a superior class of applicants so that it will be for their advantage to take our graduates and allow them to enter at an advanced standing. The insane hospital has long been a training school for superintendents of the general hospitals. The insane hospitals are large and the organization is well perfected. Institution methods are as well, if not better, learned there than elsewhere. The pupil nurse has as good (I believe better) opportunities to acquire her preliminary studies of the training school in the insane hospital as in the general hospital. The experiment is now being made where institutions of learning shall provide a course of instruction to fit young women for nurses and relieve the hospital of the literary work of its school. That is well if it insures a definite standard of general education for probationers, but I believe such instruction given in the hospital alternating with hours of duty on the wards will prove more stimulating and valuable.

Among the advantages urged for a training school in our hospitals is that it will attract a superior grade of women. This is undoubtedly true if the school gets a reputation for good work. I believe such a reputation may be acquired even though our annual list showing the number of graduates who have married and their social status be not published. Still that may help.

To one who contemplates opening a training school in an insane hospital I would urge the importance of increasing the staff from 10 to 15 per cent. The school work demands about that proportion of the pupils' time, and if no allowance is made for that it simply means that the patients will get so much less care. Nor would I insist on every nurse being a member of the school, while such a state of affairs may be ideal it is not always practicable. I have found that such a rule leads to attracting an inferior grade of the attendant class who come for the smaller wages paid the training school members, and care nothing for the instruction given. There is a vast amount of necessary routine work that is done by the old-fashioned attendant more satisfactorily than by the young pupil nurse who is, in accordance with training school ideas, assigned in rapid rotation to various posts of duty. Here the general hospital methods, it seems to me, are unsuited to our needs. In the general hospital the average resi-

dence of a patient is very brief. The ward of a general hospital is a sort of laboratory where one with a brief and serious illness is received for a special purpose. Various groups of surgical cases may be found—the typhoids and pneumonias, the contagious cases, etc., are grouped according to the diagnosis. The nurse has no social duties to perform, her work is arduous and exciting. She may be assigned from one ward to another as occasion demands with little harm to the patient. But in the insane hospital for the vast majority of patients it is a home. Each patient is peculiar—it takes a long time to adequately learn his delusions and fears and gain his confidence. Such a knowledge once gained becomes an asset which is lost if the nurse is suddenly assigned elsewhere. The management of the congregate dining room cannot economically be changed once a month, or even once in three months. I feel that in such places the well-paid, experienced attendant is of great service. The time may be coming when the training schools of our hospitals will have graduated such an army of women (who have not married) that the permanent positions may be filled with them and the attendant may not be needed.

There is no question but that the careful, systematic instruction of new nurses in the essentials is a great help. It is a great improvement over the old haphazard method where an attendant might or might not learn what to do in an emergency. Now we feel sure that at the end of her course of training each nurse has had an opportunity to learn each essential. Few new attendants that enter our hospitals understand approved methods of housekeeping. They can learn this in an insane hospital fully as well as anywhere. They should learn the care of the sleeping room, the care of the dining room and the serving of food. But, again, to learn to do it properly she must not be expected to do too much in a given time, or she learns to slight and hurry her work. Nothing in connection with our work of caring for the insane is more important than serving the food and watching the patients at meal time. I would omit all lectures on obstetrics, care of the eye or throat, if necessary, and give their place to practical drill in serving of food to patients who are unwilling to eat. The nurse trained in the general hospital sees little or nothing of this

class of patients and cannot instruct our pupils in this most necessary work.

The bathing of patients and the care of the mouth and hands are learned more thoroughly in insane hospitals than in others. Because in these hospitals a large number of patients not only will not do these things for themselves, but even resist their being done so often, that every nurse must find a great deal of this. The prevention of bed sores is taught far more thoroughly than it can be in general hospitals. After these elementary duties comes the most essential thing in all work among the insane. That which we all appreciate, but find it so difficult to carry out with our limited appropriations and large numbers of half-educated attendants. That is the individual work with patients. Each patient that we hope to see improve requires much personal attention from his or her nurse. The patient must be studied and observed with care. His individual peculiarities must be considered, and then tactful and most persistent effort will often be rewarded. Now this work is very different from the daily work of a nurse in a surgical ward. But the experience is valuable and successful and should receive high marks in school work. While I do not claim such work is not noticed in the training school, it is not given the relative importance that I feel is its due. Marks or lectures on the medical sciences far outweigh those given for such earnest and practical work. But the greatest need to carry on this true training is that of competent instructors, and I feel we are following a will-o'-the-wisp when we look to general hospital graduates for our teaching nurses. They should in every case be selected from the most successful attendants. And when they inspire in their pupils the desire to get a dull or depressed patient to occupying their hands or their mind when such a pupil shows by her efforts that she has converted an untidy into a tidy patient, such work should count as heavily in her marks as a college thesis does in work for a degree. I wish to point out another danger in this matter of head nurses whom we employ to drill our pupil nurses in their ward duties. This head nurse must find time to do this important work and we must not allow her time to be frittered away filing reports, listing clothing, and other necessary drudgery of ward work. If it be said that such

work is not for pupil nurses, I say much more is it not for their teachers.

I have in mind a very bright nurse who made herself beloved by her patients, who got an unwilling patient to eating, and after three weeks' effort the weight chart curve had reversed its incline from downward to upward. This woman was kind and very successful with obstinate patients. She always had a smile. She was very quick to grasp her ward instruction, but it was only by stretching things, under the "training school method," that she got marks enough to pass. She simply could not write a tolerable examination paper.

If we must use the marking system, let us make it mark as we want the record made, that is, give credit for successful nursing work, and not let the literary work usurp its place. No family *cares* whether the nurse whom they employ for their sick one knows the number of bones in the body or not, if she knows what to do for the invalid. The educated nurse will know these things, and it is proper to give her credit for such knowledge, but our training school diploma should not be issued to a pedant who cannot nurse and be refused a nurse who is not sure whether the aorta is in the hand or the foot.

Nurses, like poets, are born and not made, but I will concede that one is successful in neither calling in these days without some education. I merely wish to emphasize the fact that the diploma should certify to good nursing work as well as to perfect recitations in the class room.

I regret that our insane hospitals used the term training school, as it is liable to be confused with that special school found in the surgical and lying-in ward. But it is too late to correct this, let us make our bow of acknowledgment to the general hospital for showing us the value of systematic training of its nurse and turn to our own problem of instructing the care-takers of the vast army of insane who make their home for many years in our institutions. Teach them to care for their restless charges with the minimum of leather or canvas restraint. Show them how by patient care, careless patients are made tidy. Let them learn the art of feeding patients with no appetite and do not, above all, let them lose sight of the personal relation so necessary between the nurse and the patient.

I may be wrong, but I have the feeling that with all our improvements in nursing and feeding the insane, we have in some way lost that intimate personal feeling between the recovered patient and the kind attendant who saw her through her trouble. It may be the result of organization, but we should strive to restore it.

DISCUSSION.

DR. GEORGE STOCKTON.—I desire to say that at the Columbus State Hospital, Columbus, Ohio, we have had a training school for nurses for eight years, and I believe that it has been one of the most important improvements ever introduced into our State hospitals. We get better service from our nurses, and we get a better class of applicants.

In institutions where they have a large farm connected with the hospital, it is necessary to work out a number of the patients. For this reason it is seldom that we can spare our male attendants to enter the training school, and the reason for this is that they have so much outside work to attend to. I am satisfied that it is the training school which has turned the attention of the superintendents to the advisability of employing female nurses on the male wards. I never heard it seriously advocated until after training schools were established. For two years our cottage for the care of the acute curable insane has been under the charge of a female nurse, one of our graduates, and I have found, as Dr. Bancroft advocates in his paper, that it is best for her to have exclusive charge of the cottage, and everything connected with it. We have not had the slightest trouble for over a year, and our administration has been successful from the very start.

Our tubercular tent colony, in which we have under treatment over a hundred cases of tuberculosis during the season, has been under the successful charge of one of our women graduate nurses exclusively. The patients are well taken care of, and we have very little opposition from the male nurses who work among the men, performing duties that it would be unpleasant for a woman to do. However, the women nurses have absolute charge of the tents, diet, etc. In our hydrotherapy department we have a male nurse, a graduate, who takes charge of the bathing of the men, massage, etc., and a woman graduate nurse has charge of the same details among the female patients.

I wish we could have in our institution more of the male nurses attend our training school. I think it would be an advance in the care and treatment of the insane.

This has been a very interesting symposium, and I have been very much profited.

DR. S. B. LYON.—I think that as a rule the male attendant has not received justice, either from us or from the community. We are apt to

think the male attendant is such because he cannot get anything better, and that his grade in society is a naturally inferior one. My experience has not justified this idea. Of course, bad men may creep in among them, but the majority I have known were self-respecting, and up to the average intelligence.

We also ought to realize that our hospitals are training schools for patients as well as for attendants; that we cannot always be present with the patient, in the hours he is walking about unhappy and delusional, and we must rely for his companion on our attendants, and engage the best men we can get. Many of them have a fair education; some have failed perhaps in more active careers, but are fully capable of the duty we ask of them, and are more suitable than women as companions and associates for men patients.

When we inaugurated our training school, it seemed to me it should be for the men, if for any one. We could get very good women, with a natural bent for nursing, but the men, as a rule, have not done much private nursing, and need to be instructed. So we established a training school for men, as well as women, and this has been going on for 11 years, and I think the results have justified the effort, not only in better care for the insane, but in making better companions to the patients. We have many educated and refined patients, and it is not enough to put a spade in their hands, and tell them to work. They must be amused, and got out of their morbid conditions, and we find intelligent male nurses and companions a great assistance to us in restoring patients to their natural places in life. When the men patients want to go to the theatre, play ball, go to the city, etc., the competent male nurses can go with them, which women nurses could not do properly, and with manly companions, patients often brace up, and show a renewal of interest in manly pursuits, which is often a forerunner of their restoration to normal life.

If good trained men are not to be obtained, we may have to rely on trained women attendants upon the men patients, but where good men can be obtained, and can be well instructed, I believe they should be the responsible caretakers of the majority of men patients, who are not sick in the ordinary meaning of that term, and who need the stimulating companionship of other men. If women are in responsible charge of the men, you can only get an inferior grade of men, who will be willing to take the irresponsible and degrading subordinate positions, such men as are no proper companions for male patients of intelligence; and an important means of moral treatment is lost.

Dr. Edward Cowles.—Mr. President, the most striking impression this discussion has made upon me is its indication of the progress that has been made in our work. At the meeting in 1886, just 22 years ago, Dr. Tuttle presented an account of the beginning of the McLean Hospital training school. At that time certain of the principles which he has discussed to-day were, already laid down and had been put in practice. May I be pardoned for indulging this reminiscence.

There is underlying this whole matter certain fundamental principles which, it is interesting to note in all that has been said to-day, have been passing through a long period of testing. After some labor in the work of a general hospital training school, in applying the principles there recognized to a hospital for the insane I found that there must be some underlying reason for the difficulty that had existed for half a century in the many attempts that had been made to train attendants for the insane.

It seemed to me then that the fundamental principle was this: You want things of your nurses; you want certain services of a certain quality. You want young men and women to do these things; you must do things for them. There must be a fair exchange of values in such a matter. It is said of an old-time Boston merchant, that he was in the habit of reciting his maxim: "No trade is a good trade unless it is good for both parties."

The principle of the establishment of training schools was a recognition of the practical fact that the nurses ought to receive that which would repay them for giving their services to the hospital. Practically you see, as far as we are concerned, it is easily determined that they must be given a profession, and be attracted to the hospital for the insane by a like fair return for their service.

With men, it is a more difficult question. It hung fire with me for a considerable time. Drs. Tuttle and Bancroft have set forth the difficulties of the proposition as to how to arrange the duties between the men and women in the wards. From experience with orderlies in a general hospital it was evident that invitations to come to a hospital for the insane to do orderly work would not be acceptable to men of the character required at the McLean Hospital; so the attempt was made to give the men a nurse's education. Some equivalent must be given to the men as it is to women, either in the way of education or of compensation as wages. By a practical combination of these two plans the value of the education can be kept for the benefit of the hospital in the proposed making of permanent homes for at least a few selected men to give character and steadiness to the service.

DR. C. K. CLARKE.—The experiment of educating the male nurse in Ontario has not been largely followed. That the male nurse may be successfully developed has been demonstrated by young Scotchmen who have received their education in that country. I have had a number of them in my institution and have been delighted with the male nurse provided with the Scotch asylum certificate. Many female nurses also have come over, though my experience with the latter has not been so successful, and I do not think they rank with the Canadian nurse. I think the explanation is that we get girls of better social standing and education in our own country. I think the United States has appreciated the fact that the Canadian trained nurse is a success. However, the explanation for the dearth of satisfactory male attendants is that in Canada and the

United States the movement for the young man is altogether to the West where he has abundant opportunity to improve himself.

I have taken a great interest in this matter for many years; in fact, Kingston had one of the first training schools for nurses for the insane.

Several striking things have been impressed upon me. The first is that the general hospital nurse does not as a rule make a success of nursing the insane, but the almost ideal nurse—Dr. Hurd and Dr. Cowles, I think will agree with me in saying this—is the one who has commenced her education in the insane hospital and finished in the general hospital. Provision should be made for post-graduate courses for asylum nurses in general hospitals, and if similar courses for hospital nurses could be arranged in hospitals for the insane, so much the better. Now that the psychopathic wards in hospitals are the fad, it is proper that the nurses should have an extended knowledge of the nursing of the insane. I hope the day is not far distant when this will be the case in Canada. I think Dr. Burgess will bear me out, also Dr. Beemer, that it is possible to educate the male nurse.

Dr. Burgess.—I can fully endorse what Dr. Clarke has just said with regard to the good qualities of the men from the old country holding the certificate of the British Medical Association. I have had several such and they certainly are among the best male attendants I ever had. I might also say that during the past two or three years I have had several medical students on my staff, young fellows who took the winter course and who have to make their own way in the world. I now have two of these who have been with me for three summers and they certainly make very desirable attendants. The disadvantage is that you lose them in the fall when the session begins, but they are so good that I am very willing to help them along by giving them employment during the vacation.

Dr. Tomlinson.—In considering the subject of training schools for nurses in hospitals for the insane we are prone to keep in our minds the picture of the past when considering the present or future. I can remember very well the beginning of the training school for nurses in the general hospital, and I also recollect that every objection which is now being made with regard to the care of insane men by women nurses was made with regard to the care of sane men by women nurses. All these apparently insurmountable difficulties disappeared in practice, and I believe that the history of the woman nurse in the care of the insane man will be the same. We all know that within the last hundred years it was considered to be an absolute necessity to chain a maniacal patient to the wall or floor, and that within a comparatively recent period it was still considered necessary to put him in a bed harness. It is with nursing in our institutions as it is with medical work. I remember being present at a meeting of this association when the superintendent of an institution made the statement that the insane did not require any other medical care than

that concerned with the preservation of their general health. It is the same with regard to the nurse. Many institution officers cannot get the picture of the attendant out of their minds when considering the nurse, and others have been disappointed because they have tried to transplant the general hospital nurse into special hospital work. What we need more than anything else is to improve the material out of which we are expected to make nurses. At present the candidate for the training school in a hospital for the insane is classed with the house-maid, and yet the amount of intelligence, tact, judgment and skill required to care properly for an insane person is infinitely greater than that required in the care of even the surgical patient in a general hospital. There is need of missionary work with the public to teach the importance of intelligent care of the insane, and I believe that this work can best be done by making the hospital work proper the central idea in the conduct of our institutions. I know from personal experience that nurses may be as well trained to do general nursing in a hospital for the insane as in the average general hospital, and, given the same kind of material, we can make a better nurse in a hospital for the insane, because the nature of her work makes her acquire a very much greater degree of self-control, and teaches her to think and act for those who cannot think and act for themselves. It has been my experience in institution work that a man may accomplish almost anything within reason if he determines to do it, and also that he can find abundant excuse for not doing a thing if he does not want to do it. We have solved the problem of giving our nurses special experience that is not ordinarily acquired in institutions for the insane by loaning them, during their senior year, to general practitioners in the neighborhood to attend obstetrical cases, and care for children. The surgical training we are able to give them ourselves.

DR. W. A. WHITE.—One of the things that occurs aside from getting the proper people to apply to the hospitals for positions, is that after the nurse has had her training and got her education she very often leaves the hospital. Her training is often so good she is able to enter into competition with the nurses from general hospitals and make a very successful livelihood outside. It seems to me that one thing that could be done by this association would tend to help that matter, I do not know how much. It seems the proper thing would be to have a committee of the association on training schools, who could prescribe or lay down the minimum requirements for training schools in hospitals for the insane and that the nurses who graduate from each State hospital represented in the association that has met these prescribed requirements, would be received as a nurse in other hospitals of the same character. That might make perhaps a little tendency to shifting at first here and there, but I do not think it would amount to anything and it would tend, in my mind, to keep the class of graduates of State hospital training schools within the service of the insane somewhere within the United States. How much it would help I do not know, but the British Association has done some-

thing along that general line, and their experience seems to have been such that I think it is worth while for us to try it.

DR. C. G. HILL.—These beautiful interesting theories about the employment of female nurses for male patients is to me like picking up a magazine and reading something written half a century ago. Institutions have solved this problem long ago, so long ago that there should be no discussion about it all. There is a little difference of course in the kind of nurses. Our nurses at Mount Hope are Sisters of Charity and prove all these theories that have been here advanced. The female nurses care for all the patients in the place, not only for the convalescent, but the most violent, demented, most insane, those with the greatest depresssion. It is the extremely violent patients, the demented patients, the uncleanly patients that require the gentle hand of a woman more than the convalescent. They have some feeling and can manage and control and direct themselves, but the extreme patients are the ones that require the hands of woman most. So far as male attendants go, we have none. We have orderlies simply and can afford to be satisfied with an inferior class, though the better nurses are always preferable. Very little is left to these nurses beyond observing directions. The catheter is always introduced by the physicians. The use of the catheter very often grows upon what it feeds and if left to the nurse for the sake of convenience, it will very often convert the nurse into the catheter habit. The physicians must do this themselves. Except in a very few cases you will find few patients to require it; it is very seldom used.

Regarding the administration of an enema, I some time since listened to a paper by Dr. Meyer giving the actual cause of death of several cases as the puncturing of the rectal folds by the syringe in inexperienced hands. I have entirely removed them, even from the male attendants, except in a few instances where we have instructed them, and the function is delegated to special attendants with a view of preventing the bungling administration of an enema.

As a matter of fact we have more violence and more trouble from the female patient than from the male. It is surprising very often how the most violent patients will retain their amiability when a woman is about. It is the power a pure, sweet woman always exercises. If you will consider the matter, you will find that a woman is a natural born nurse, the more gentle and womanly, the better the nurse. Now as the woman becomes a little mannish, as is the tendency of the present day, she spoils her usefulness as a nurse. The best male nurse is effeminate and is good accordingly as he approaches a woman in his characteristics.

It is not difficult to select the right kind of women, place them upon every ward as nurses, and, gentlemen, you will find that the problem will solve itself.

DR. E. H. HOWARD.—Gentlemen, let us not be led astray by the eloquence of Doctor Hill regarding the Sisters of Charity. The facts stated

by him do not help us out of the difficulty we are in, nor show that the statements in these papers are wrong.

Dr. C. H. Hughes.—This is an old subject and one of the most practical in the care of the insane. The most important and difficult matter is the discharge of services which are unpleasant and menial connected with ministering to patients. You can get attendants who will minister wholly to patients and get other people to do the manual work about the institution. One of the frequent complaints is that too much menial service is required of the attendant.

The question comes up here as it did between the King and the physician in Hamlet's time. The answer to that question, unlike that of the King's physician to "throw physic to the dogs," consists in applying our medical remedies, promoting the patient's welfare, and "ministering to the mind diseased." It is the question that comes up in our management of all hospitals, and of the sane as well as the insane. It comes forward in the question of the open door, in the question of the closed door. There are patients who cannot sleep unless they are sure that their door is closed from intrusion from without. Obviously the theory that the removal of doors from all wards is desirable is erroneous. There are other patients that are so timid when the night comes that they ask for protection, mental and physical, to have some one near them to keep others away, and this makes it necessary for something more than one watchman on a ward. You would think that people would not feel very comfortable locked inside a room of a hospital for the insane, and yet there are such patients. It all hinges upon the question of rightly ministering to the mind diseased and answering the question of the King, not by throwing physic to the dogs, but by ministering to them psychically and physically, according to individual real or imaginary needs.

There are certain forms of mental aberration that make it absolutely impossible to put female nurses in contact with that class of patients, so the division of a hospital into wards has grown up, recognizing the necessity of having provision by which you can transfer one patient with special morbid antipathies from one set of attendants and one environment to another.

Dr. George A. Zeller.—I wish to add my testimony to that of Drs. Bancroft and Hill and to speak of the efficiency of women attendants on male wards in the Illinois Asylum for Incurable Insane, the newest institution in that State, containing 1650 inhabitants. We have 23 wards, all but one of which are absolutely in the hands of women attendants. We do not use the word nurse in the ordinary ward of our institution. We reserve that for the hospital wards. This has been going on with us for more than a year, and it is eminently satisfactory. I would go as far as Dr. Hill in recognizing their work, if I were not afraid that one mishap would throw the whole work back and compel us to replace these women with

men. We have been able to take all the bars off the doors and windows, and altogether the woman attendant has been a very pronounced success.

DR. BANCROFT.—I do not know as I have anything more to add. I think that Dr. Tuttle and I are mainly in accord with the situation. The only thing is that Dr. Tuttle approves the employment of women on men's wards, but not in placing them at the head. He, as I understand, would wish to have the woman's influence on the ward, but he would still prefer to have a man at the head of the work. This, as I understand it, is the main point on which Dr. Tuttle and I do not agree.

But I still must say that my own personal experience has led me to believe that women could not do satisfactory work unless they are at the head with a free hand and were responsible directly to the management of the hospital.

I think that institutions like McLean and Butler Hospitals and Bloomingdale Asylum are somewhat different from the State hospitals. These large private institutions have a larger income; they are necessarily run on a little different scale from the large State hospital and the question of expense and finance must come in as a handicap for the superintendent of the State hospital. I have so far found that it was not a practical thing to train the male attendant.

There does not seem to be the inducement to draw in the average attendant into the work. If we have a course of training and he graduates, there is very little demand for the professional services of such a trained nurse. The market, at least in the country, is somewhat overstocked with trained nurses already and the people find that the expense of employing a trained nurse is excessive and burdensome. The good trained woman nurse receives all the way from 18 to 21 dollars a week, and that is for the average country town of New England an excessive price. The ordinary man in New England who is perhaps a good smith or carpenter or mechanic cannot afford to pay three dollars a day for a very long time.

If you train the man attendant to be a professional trained nurse and he graduates as a professional trained nurse he feels he should have at least five dollars a day, and our rural communities in New England would not stand the demand on their pockets of that sum, so when the male nurse goes out from the institution, he does not have the opportunity to secure what he thinks he ought to have. I think this is one great difficulty in training the male attendant in the training school of the hospital.

DR. TUTTLE.—In the main I agree with Dr. Bancroft. I would have no objection to placing women in charge of some wards, but I have another object in view. We must employ some men. If we are to have good men, we must educate them. Now if we take away from these men certain wards and reduce them to orderlies, we by so much limit the career of the male nurse, which now is not too alluring. So for the sake of educating the men, if for no other reason, I would keep a man in charge of the men's wards.

I think there is a place for the graduate male nurse. It is chiefly in the cities where the people have money to pay for them. I know many men who are getting from 25 to 35 dollars a week and they are satisfactory to physicians and families. Some are in Boston, some in New York, some in Philadelphia, and some in other cities. They are not all good, but there are some splendid male nurses and they are in demand. The question is whether there is enough demand to give these young men an incentive to enter the hospitals for instruction. I think the only chance we have of getting good male nurses is to offer them a career which must be chiefly outside the hospital, for it is necessarily limited within the hospitals themselves.

I have recently requested the trustees of McLean Hospital to increase the pay of male nurses who have charge of wards. I would also like them to be married and have homes, and live in cottages on the hospital grounds, as at the Lanark District Asylum in Scotland, which has built 35 cottages on its grounds so that good men can marry, have a family and make it a life work. The Lanark Asylum has thus solved the problem of retaining the services of good men.

DR. WOODSON.—We have a training school; all of our nurses are expected to attend 30 lectures and recitations a year. Those attending our special course attend 60 lectures and recitations during the course.

The question of keeping help in an institution resolves itself into this: A man will not stay in any position when he can better his condition. The young man who will enter the hospital service with the intention of making it a life work is not worth employing. A man who has no greater ambition than to be a nurse at the ordinary salary that is paid in any institution in America is not worth employing. Men who want to complete their education, literary or medical, gentlemanly fellows with ambitions, make good help. I have helped to graduate 75 physicians in medicine by giving them positions during the vacations of their college or medical course, and they bring to me in the spring of the year, at the time at which I find it most difficult to obtain satisfactory help, a class of deserving men from their associates.

There is no reason why the woman who does work of a man should not receive the man's salary. The man who has passed middle life and has lost his position, or is not able to get a position, makes a good hospital nurse because the prospect of a steady position in a State asylum appeals to him. It is seldom that I employ anyone who has worked in other institutions, but if so, he must have a letter direct from the last superintendent under whom he worked. I make it an invariable rule to help every good man or woman get a better position. By that means they leave us with kindly feelings and that helps to bring us others.

As to the married nurse, I have not had much experience, except this that among most people who are married there is a tendency to go from one State hospital to another, so I always discourage their employment at my institution. I find that if it is necessary to correct the wife the hus-

band is mad and wants to fight some one. If it is necessary to correct the husband the wife pouts. If one wants to get off and you do not let them both off, they are both pouty. If the family has one sick, the other must go. Our experience has been very decidedly unsatisfactory with the married help.

The reason it is difficult to keep satisfactory male help is that the hours are too long and the salary is too small. The various openings in the avenues of business, commerce and mechanics are many and the demand for men in every walk of life is great. It is difficult to get good domestics and hostlers and farmers. So long as there is such a demand for good men of all kinds, no good man is going to enter the service of an institution and be satisfied to work for the remainder of his life for a small salary, especially when the service is so hard. Under present conditions I can see no promising solution of the problem.

DR. LANE.—In regard to Dr. Bancroft's paper, I think all of us who have had experience with women nurses on men's wards agree that they are successful and it is bound to come. My experience unfortunately has been a limited one. It may be some time before the large public hospitals can add women to the men's wards without additional expense. Any man in hospital work knows that it is very difficult to get adequate male attendants. Here in Boston it is like trying to carry water in a sieve. I believe there is only one solution here in our community, and that is to put the man on a basis of life with other working men. They should have a house and hours with their family. They should not be under the necessity of hospital discipline when off duty. Under present conditions we are unable to relax this after working hours. They should have a right to go back to their families, and until we meet that condition, I think the trouble will always be with us.

I feel that the large insane hospitals have got to realize that they have this immense amount of material for training nurses and I believe that some organized movement should be taken up to have the general hospitals appreciate that the insane hospitals train superior nurses. They have got the material; they can train young men and women in the care of the human body. The ideal plan is for them to start the work in the insane hospital and finish in the general hospital. Here in Boston our directory of nurses states that some physicians very much prefer the graduates of the insane hospital, and they are in demand. They have learned the individual care of cases. They are trained in treating and recognizing the individual character.

Clinical Psychiatry.

CLINICAL DEMONSTRATIONS.

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III.

DEPRESSIO PSYCHOMOTORIA.

Profound intellective-volitional inhibition in a young unmarried woman of 30. No previous psychosis. Long prodromal period coincident with the development of alienation in her mother, and characterized by mild subjective insufficiency. Period of evolution of the disease about four months. Period of convalescence, four months. Total duration of the psychosis, eight months. Recovery.

In the last demonstration[1] we considered a condition of primary affect depression known most generally perhaps as *melancholia simplex*. It is a psychosis pre-eminently of young adult life and tends to recur at intervals varying greatly in length, with or without maniacal phases. The latter may precede, complicate, follow, or indeed entirely replace the depressive attack. The disease is represented by the *tristimania* of RUSH, the *lypémanie* of ESQUIROL, the *affective Melancholie* of WERNICKE, and the depressive phase of the *manisch-depressives Irresein* of KRAEPELIN.

The patient, Miss C., whom we have before us to-day makes a very different impression from that of the last one, and yet we shall see that their conditions are closely akin. Here again we have to do with a young woman who up to the time of her present illness enjoyed good mental health. She is now undergoing a partial rest treatment and our interview must therefore be conducted at the bedside.

[1] American Journal Insanity, July, 1906.

In physique she is distinctly delicate. Her frame is slight; she weighs in her nightgown only a hundred pounds; hands, face, and mucosæ are pale, and the extremities cold and moist. She has reached her thirtieth year, although from her appearance one would perhaps conclude that she was a bit younger. The small and well-formed features suggest intelligence and refinement, her person is neatly cared for; the nails are in good condition.

As she lies in bed, for the most part quiet, now and then moving slightly in an irresolute, purposeless manner, there is reflected in general bearing and facial expression a condition of mind which is adequately described as *psycho-motor depression.* This primary psycho-motor depression is the determining feature of the psychosis and is the composite representation of a number of elements which must be considered in turn.

In the first place, What is the nature of the patient's subjective relation to her surroundings, the adjustment of the ego to its environment? We noted at once on entering the room that she turned her head in our direction and displayed a slight spontaneous interest in our presence. This was a fairly involuntary act, the natural reaction to the primary auditory and visual sensations produced by our approach. When we address her a smile overspreads her countenance, she moves her hands, her lips part, and we expect a prompt and reasonable reply, but in this we are disappointed. At first no sound escapes her; she seems to be making an effort to speak; her lips move slightly, but at most an inarticulate murmur or perhaps after a considerable delay a single syllable or word is faintly uttered.

Orientation, which is purely a sensory, viz., psycho-sensory phenomenon is partially interfered with. The peripheral tracts are sound and their function qualitatively intact. Primary sensory impressions, as such, are correct, but in their comparison, recollection, and interpretation (*secondary sensation*) there is obvious hindrance. It is thus in the psychic rather than in the peripheral element of sensation that the disturbance exists. Accordingly as we have seen *spontaneous attention* is active while *voluntary attention,* which depends upon sustained interest and adequate secondary sensation, is decidedly defective. As a result of this defect in secondary sensation and in voluntary directed attention, the patient doubtless has a very imperfect conception of

the passage of time and of her bearings in space, as well as of her relations to the persons of her environment, although from herself we have no direct evidence on these points.

What is the result of these various elements in the psycho-sensory sphere upon the paths of discharge? It is here pre-eminently in the psycho-motor sphere as has been indicated that we encounter the positive signs of the disease. The associative processes are in abeyance and whatever mental activity is present, takes place as it were against great resistance. Psychic initiative is practically nil, for although a tendency to action is demonstrable, it is overcome by the still greater tendency to inaction determined by the lack of abiding conscious purpose. Consequently, in her motor expression she accomplishes nothing. She has been in the hospital nearly three weeks and is tolerably accustomed to remaining in bed. During the first fortnight, however, she was continually leaving her bed, standing idly in the middle of the room or wandering slowly and aimlessly about, occasionally making a feeble attempt to dress by putting on one or two garments without first removing her nightgown. All of these movements, as well as the mild resistance which she sometimes interposed to various attentions or to passive motion, were apparently fairly reflex defensive phenomena born of her partial disorientation in a new, strange and instinctively unwelcome environment.

We shall have a very satisfactory demonstration of the patient's psycho-motor condition in examining a series of letters written by her at different stages of her illness. The first one which you here see is very remarkable indeed:

"*Dear Sister,*

I"

As you observe, it consists of three words, a tolerably short letter; it consumed nevertheless an hour in the making. This letter, written about a week ago, represents the first definite attempt at voluntary expression. During the previous fortnight following admission to the hospital, the psychic depression was deepening and practically all directed volitional impulse was absent. We will now offer the patient a bit of paper and a pencil in order to see how she sets to work. She extends her hand but slightly, after a considerable delay, with a slow, uncer-

tain movement, and weakly grasps the pencil, holding it irresolutely for a considerable time, repeatedly putting it to the paper but without making any mark. Finally, after many futile attempts, she succeeds in making a single capital letter. As soon as the first stroke is initiated the rest of the letter is formed promptly and correctly, but at this point it was necessary to lift the pencil from the paper—the obstacle of inhibition reasserts itself and the capital letter stands alone without the rest of the word which it was intended to introduce. At length, after another considerable interval, the cumulative effect of repeated efforts overcomes the inhibition, and the word stands complete. Here again we see that it was the initial effort which cost most. The small letters of the word, being connected with each other, were formed easily and fairly rapidly as soon as the first stroke of the first letter was actually begun.

After watching these operations for a few minutes one can more easily appreciate that the patient required an hour in putting down the three words of her first attempted letter, and that at the end of that time her weakening volition no longer sufficed for the struggle, so that she laid down her pen and sank back upon the pillow.

Since the first appearance of consciously directed volitional impulses, a slight improvement has already been noted. Two or three days after writing her three-word letter, Miss C. composed the one which is herewith presented:

My dear Mother,

I wish you would come up and see me. I am sure you would enjoy yourself. I am tired of staying in bed. Perhaps you could help me get dressed and then we would go home together. I am sorry I came away.

Sincerely,

C——.

In general execution this letter does not differ from the first one. Volition was longer sustained, but there was the same hesitation and irresolution between words that we have already observed. The patient sat on the side of her bed to write and was five or six hours in finishing her letter of four lines. It is neatly put together, punctuation is carefully attended to, and letters and words are well formed throughout, as we should expect from our patient, who for the past ten years has been a scrupulous and

successful school teacher. But while the mechanical part of the letter is faultless, we see in its content marked associational inhibition and defective insight. Particularly, the second sentence, in which she assures her mother that she would enjoy herself, would hardly occur in normal association with the other sentiments expressed or with the circumstances; while the closing words, in which she regrets having left home, plainly indicate her lack of appreciation of her situation. At the same time the feel of subjective insufficiency is reflected in the remark that her mother might help her to get dressed.

We have dwelt particularly upon the patient's letters in this case, and it is important to do so, inasmuch as through them we can clearly trace the changes taking place in her mental condition. Moreover, we are able by this means to obtain a certain insight into her psychic processes which we should miss were we forced to rely entirely upon verbal communication, for curiously enough the inhibition is more difficult for Miss C. to overcome when she tries to express herself in spoken words than when she resorts to pen and paper. The psychology of this fact is complex and comprehends among other elements a natural disposition of shyness and reserve, as well as the circumstance that the sense of subjective insufficiency is doubtless greater in the presence of interrogation than when she is left to her own time and occasion in expressing her thoughts in writing. We shall watch with interest the development of her written ideas, and shall present for comparison later examples of her letters.

Let us consider now for a moment the state of the *affect*. As we have seen, she greeted our address with a smile, and this is indeed her more usual expression, although often enough, especially earlier, her facial habit revealed perfectly the delay, difficulty, and uncertainty of the succession of association processes. At times, however, of late, Miss C. has been found in tears, sitting or lying in bed and sobbing quietly to herself quite in the manner of a child and with quite the same inability which the child often shows to explain the trouble. These crying fits have not been frequent, are usually of short duration and can sometimes be cut short by attention and cheering words. They are without doubt a more or less reflex expression of the feeling of insufficiency and helplessness plus a degree of homesickness,—not forgetting also

the sex of the patient. Certain it is, at least, that these lachrymose seizures do not depend upon any condition of affect depression at all comparable with that of the patient considered last time. Indeed in Miss C. it is impossible to discover any conspicuous anomalies in the affect sphere. She is neither pathologically elated nor downcast, neither is she apathetic and indifferent; and her ideational processes, as we should expect, while quantitatively reduced, are not perverted to morbid sombre tones.

There has been no evidence whatever of hallucination.

As to her *physical condition,* it is to be observed that the patient is about fifteen pounds below her normal weight. The only ocular symptom is an inequality of the pupils, the outlines of which are regular. The tendon reflexes, both upper and lower, are symmetrically exaggerated. On admission three weeks ago there was a slight hypothermia and during the first few days the temperature ranged from 97° to 97.6°. The curve has gradually risen and for several days has stood between 97.8° and 98.2°. The blood pressure is approximately normal, averaging about 115. The pulse has been constantly elevated, the average rate being about 90. Hæmaglobin, 70.

Having thus got a general symptomatologic view of the patient's morbid state as it now exists, we must next consider her as an individual, her antecedents, and the development of her disease. From the patient herself we shall obviously get very little information, and we must therefore have recourse to the data furnished by her family. We learn that Miss C. is the eldest of a family of six. One brother died during childhood, but the remaining four, a brother and three sisters, are living and in perfect health. Her father's people have been sturdy and long lived, but on the mother's side there is a distinct psychopathic tendency. Her maternal grandfather was an alcoholic Southern gentleman of intense prejudices and violent impulses. His wife, the daughter of a slave-holder, was brought up on folk-tales and beliefs in the mysterious and supernatural, as a result of which she was always extremely superstitious and a firm believer in signs. Her daughter, our patient's mother, seems to have partaken largely of this character and disposition, and indeed with advancing years has come to duplicate more and more her mother's nature and eccentricities.

In the case of the mother of Miss C., however, the matter went further, culminating five years ago in a menopausal allopsychosis dominated by delusions of suspicion and jealousy. Her alienation still persists, and in the fact that Miss C. has all her life lived at home, and consequently during the past five years in daily association with her insane mother, is to be sought doubtless one of the etiologic factors in the case which we have before us.

In the early life of the patient herself there is nothing significant to mention beyond the fact that in disposition she was very modest and retiring, and although personally attractive manifested perhaps a somewhat subnormal inclination toward the opposite sex. The catamenia appeared without disturbance at fifteen. She was devoted to her school life and work, graduated from the high school at nineteen, took up teaching shortly afterward and has since followed this vocation in her home town, applying herself faithfully to her duties and discharging them satisfactorily.

In religion Miss C. adheres to the Methodist faith, but has never displayed any religious excesses. It is a curious observation that of the various denominations, the Methodists appear to be most prone to insanity, especially to the so-called functional and affect psychoses. We have found that among the patients admitted to this hospital during the fifteen years that it has been in operation, 30 per cent of the women and 25 per cent of the men whose religious deviation was ascertained, came from the Methodist Church, notwithstanding the fact that some twenty-five denominations are represented on our admission lists. It is to be remembered that in point of numbers the Methodist is a particularly strong denomination, being second only to the Catholic Church in Maryland as well as in the country at large. However, in the two States, Maryland and Virginia, from which the great majority of our patients come, the Methodist communicants are outnumbered by the Baptists. They nevertheless appear to contribute more to the insane population than either the Catholic or Baptist Church. This excess of Methodists, particularly women, is of course not so much an argument that the teaching and practice of this church predispose to diseases of the mind, as perhaps simply an exemplification of the fact that persons who have an affinity for

the demonstrative emotional forms of religious belief, are for the same reason the most favorable subjects for the development of mental alienation.

In the case of Miss C. her religious life has been temperate and has no particular bearing upon the disease. Neither have religious ideas at any time obtruded themselves upon consciousness during her illness.

What can be said concerning the *pathogenesis* of the condition in which we find the patient? The element of heredity has already been mentioned. Stated objectively, we have, beginning with the maternal grandmother:

(a) Mild psychopathic tendency as a life-long characteristic;
(b) Daughter (patient's mother), insane at 49;
(c) Granddaughter (patient), insane at 30.

Miss C. is said always to have had rather a delicate constitution. Being the first-born child there existed an "unusually strong bond of sympathy" between her mother and herself, and in this fact we have perhaps the key to the situation. Her mother's alienation, which was of a very distressing character (jealousy toward husband; gross accusations of immorality preferred against him and all her children as well, including patient), must have preyed upon her mind from the first, and may doubtless be said to have exercised, during the five intervening years of almost daily intercourse, a cumulative pathologic effect upon her mind.

With anyone, if there exists in the background of consciousness an ever-present cause of anxiety and concern, the powers of mental concentration and accomplishment will be certainly weakened; and if now the two elements continue effectively co-existent—the work impulse and the deterrent impulse—a catastrophe may be looked for. Our patient kept regularly at her school duties term after term, but it became apparent to those who knew her best that she was bringing just a little less ambition and spirit to her work, her powers of adaptation and recuperation suffered, the small annoyances arising in her daily occupation became magnified in their effects. This state of affairs was present probably three years at least, and we are justified therefore in assuming a *prodromal period* of that length. The patient consulted her

physician, who gave her a tonic and advised her to lay aside her work for a time. This counsel was unheeded and she plodded on.

Finally, during the past summer (1905), the last straw was added. From the spring term's work she was somewhat pulled down, having got through the year with unusual effort, but was prevented from taking her customary short vacation trip by the illness and death at her home of her maternal grandmother. After an exhausting summer, devoted to the care of her grandmother, Miss C. resumed her school duties within a week after the latter's death. The effort was, however, too great; she could not "collect her thoughts," or force herself to her tasks. The feel of subjective insufficiency grew to be an oppressive burden, the desire for solitude and rest became urgent, and within a fortnight following the opening of the autumn term, she gave up, declaring herself incapable of further effort.

From this time (September, 1905) the psychosis developed rapidly. All spontaneous volition was gradually abolished and the patient became passive, silent, listless, and fairly inert. As is frequent in such cases, the menstrual function was interrupted with the establishment of the disease. On observing this her mother, controlled by insane ideas, flatly accused her of being pregnant, berated her roundly, dwelling upon the disgrace which she declared her daughter had brought upon the family, and in her tirade registered a prayer that the patient might die in childbirth. Home was obviously no place for her, and during most of the time previous to her admission here she was with relatives. She was brought to the hospital about three and a half months from the onset of the psychosis. It is now fully four months from the onset, and the acme has clearly been reached.

With the development of the psychomotor inhibition there was never any noticeable involvement of the affect. Aside from a degree of restlessness at times, which has been referred to, the patient moved little, said little, did little, all because the energy required was greater than she could command. The slowness and difficulty of association made it impossible for her to follow and interpret all that was said to her; and recollection being also difficult, amnesia was counterfeited.

SECOND SEANCE (April, 1906).

During the period of three months since the presentation of the case of Miss C., you observe that changes quite as remarkable as those in the patient last considered, have taken place. She has been transferred to the convalescent ward and is beginning to occupy herself with embroidery and similar work. She greets us naturally, does not spontaneously extend her hand but gives it nevertheless, replies to our questions promptly but rather slowly and in a very low, sometimes scarcely audible, voice. The deep psychic depression has practically disappeared, and the patient behaves now much as a normal person would. At most, she shows in the presence of strangers a slight embarrassment and hesitation in reply, a certain reluctance to being questioned, lowering her voice almost to a whisper, so that it is necessary to approach very close in order to catch her words. This is the natural outgrowth of her normal disposition, as affected by the insight of convalescence.

Improvement has been slowly progressive without crisis or striking episodes—a simple gradual ascent of the psychic curve. To illustrate this we shall have recourse to one or two more of the patient's letters. An interval of a month elapsed between the last letter presented and the following, which is one of a number which Miss C. has written in the past few weeks.

"SHEPPARD HOSPITAL, TOWSON, MD., Feb. 15, 1906.

Mr.————,

DEAR UNCLE——,

Won't you write a letter to the head nurse of this hospital and ask her to have me sent down to the boat that leaves Baltimore Feb. 20th for (destination) so that I can spend Washington's Birthday with you and (name of relative). I came here by rail but I would like to try the boat trip home. I have always been anxious to take that trip. You might suggest in your letter that I be escorted to the boat by the tall sandy complexioned young man that was in the office the day Papa brought me here and by a tall grayhaired lady that I called Cousin Kitty the first night I came

here. You might ask the chamber-maid on the boat to be on the lookout for me. Write just as soon as you receive this so that there will be time enough for ~~me~~ them to pack my clothes ready to leave. You had better request ~~them to take~~ find out ~~what wharf~~ the number of the wharf that the boat lands at and ~~instruct them to~~ ~~the~~ ~~have the hour~~ it is write them to take me there on the morning of Feb. 20 so that I won't get left. I don't know how to find my way there but these two people I am sure will take me there and be glad to get rid of me hanging around this hospital. Write on your business paper ,so that they will know I am not telling them stories when I say I have an Uncle in (name of place) in the mercantile business.

Please do this at once. Much love to you, (name of relative), and the children. I am writing to you instead of the folks at home because I know it is more convenient for you to ~~arran~~ see to this than it would be for Papa to see to it. I am very anxious to take the trip and please don't forget to do as I say,

Your niece,

...."

Comparing this letter with the former one we see a number of striking differences. In the foremost place, the length of the letter indicates a sustained mental effort which was quite impossible in the earlier stage of the disease. Moreover, if we set the individual sentences of the two letters over against each other we shall have a good idea of the alteration which has taken place in the associative faculty. In the first letter containing five sentences the average number of words in a sentence is eight and three-fifths. The average number per sentence in the second is 24. The increased complexity of grammatic construction, the more intimate connection and harmony between the ideas expressed, and the greater facility in expressing them, are all perfectly apparent. Further, this is the first letter to which the patient has affixed the date, and we see that in general relations she is clearly oriented. Previously her narrowed range of psychic activity did not allow her to trouble herself about time and place.

In two or three points, however, the letter is pathologic. That her *autognosis* is still inadequate is seen in the confidence with

which she asks her uncle to send for her, and the detailed instructions she gives. As a matter of fact at the time this letter was written, the patient had no clear idea of the illness through which she had been passing, and her assuming that the head nurse could and would at once arrange for her leaving, shows that she was not yet altogether *au courant* as to her relations in the hospital.

Quite out of keeping with her normal neatness are the numerous words and phrases struck through with the pen. We see here a considerable uncertainty and indecision in expressing a simple and direct idea, representing the aftermath of psychic depression which only a few weeks before had made it almost impossible for her to express any idea at all.

Finally the patient refers to someone whom she had called "Cousin Kitty," showing that earlier in her illness there had been confusion of the identity of persons. Indeed she now tells us that during the first few weeks she quite confounded the individuality of those about her, mistaking doctors and nurses for former relatives, friends, and acquaintances.

I shall show but one more letter, this one written only a fortnight ago. It illustrates a new phase of convalescence, the use of artifice to gain her ends. The letter was directed to her mother and she had attempted to disguise the character of her handwriting, not, however, with complete success. This is the letter:

"SHEPPARD HOSPITAL.

My dear Mrs.——,

Your daughter is an object of pity and distress. I think her trouble is more homesickness than anything else. Can't you come and take her home? Her father was here to see her some time ago, and she begged so hard to go home with him, but he said he had business in the city and could not bother with her. She says if she ever gets home again she will know how to appreciate it. *I am sure she will, too.* If she was my daughter and I had a home to take her to I would certainly gratify the wish.

I don't know whether you will thank me for writing this or not. It is my sympathy for her that has prompted me to do it. There is too much noise and confusion here for her.

Truthfully yours,

A PATIENT.

P. S. I thought it best not to sign my name in case it might get the nurses in trouble."

It will be remembered that in the previous patient a hypomaniacal phase succeeded the affect depression and initiated convalescence. In Miss C. affect anomalies played no part in the developing disease picture. With the clearing of consciousness, however, and the returning insight, nostalgia sometimes became pretty insistent. She wore an expression of sadness and yielded not seldom to outbursts of crying. If one spoke to her, though, she was usually responsive and soon exchanged tears for smiles. Thus her sadness was psychologic and did not pass beyond normal bounds. Depressive delusions were never present, and no suicidal tendency ever appeared.

At the present time the patient is nearly well. She is gaining slowly in weight, being now at 110 pounds (100 on admission). Besides laxatives, the only drug she has received is Cannabis Indica, which in ½ or ¾ grain doses a half hour before meals usually has a good effect in stimulating the appetite and sometimes perhaps assists in establishing a normal euphoria.

The menstrual function, which intermitted in October and December, has been regular and normal from January, co-incident with beginning improvement, although at first the patient was usually somewhat more depressed and emotional at the time of her periods.

There is still a sense of fatigue accompanying effort which will gradually wear away, as well as a degree of subjective unsureness, indicating that recovery is not yet complete.

The pupils are equal and all the reactions are normal. The tendon reflexes continue somewhat exaggerated.

In the present case as well as in the last one we have to do with a psychosis of fairly rapid onset, running a course of several months and ending in recovery.

Both are tolerably pure type-cases and their essential difference we find to lie in the fact that here it is primarily the *intellective-volitional* side of consciousness which is involved, while in the other case the *emotive* sphere was chiefly affected. In the latter case, however, psychomotor depression was not absent, and similarly in this patient there have been emotional disturbances and mild manifestations of depressive affect—so that in spite of the apparently wide divergence between the two symptomatologic

pictures, we are led to recognize in them first cousins of disease. We know, moreover, that in the same patient conditions of profound psychomotor depression, culminating in so-called *stupor*, may alternate with clearly-defined attacks of maniacal excitement or emotive depression. What determines the character of the outbreaks in the same or in different patients we have as yet no means of knowing.[2]

[2] Miss C. was discharged from the hospital about six weeks after the second demonstration. The fatigue phenomena had practically disappeared and her mental reaction was normal. She had regained her usual weight, 115 pounds. Three months after discharge she reported that she was well and that she now weighed 130 pounds (end of August, 1906).

British Medical Association
Psychological Section

The British Medical Association, for the second time in its history, held its annual meeting in Canada in August of this year. The meeting extended over four days, August 21-25, and over two thousand members and visitors took part in the proceedings.

The Psychological Section, presided over by Dr. William Julius Mickle, of London, well known for his studies in paresis, and his book on the disease, was well attended, and its sessions were of particular interest, as they gave opportunity to work out clearly the different trends of thought which characterize the psychiatrists of Great Britain and America. Many of the discussions were of high order, and in spite of the hot weather, which must have been a revelation to the visitors who regarded Canada as a land of snow and ice, at times, became animated and warm.

The social functions, during the meeting were many, and a luncheon given at Toronto Asylum, to the members of the Psychological Section and the visiting members of the American Medico-Psychological Association, by the Ontario Government was a happy event. The Hon. Mr. Hanna, Provincial Secretary of the Province of Ontario; Drs. Mickle and Schofield, London; Drs. Hurd and Brush, of Baltimore, were the chief speakers, and while a vein of humor characterized their remarks, it was quite evident that all thought Ontario should go even further than she has already done, in making provision for the treatment of the insane.

The following is a brief abstract of the proceedings of the Psychological Section:

August 21, 1906—First Session.

"The Etiology of General Paresis." By A. R. Diefendorff, Middletown, Conn.:

Dr. Diefendorff based his observations on a study of one hundred and seventy-two cases of paresis, cared for in the Connecticut Hospital for Insane, from 1898 until 1905.

During this period the percentage of cases of paresis, as compared with the total admissions, ranged between 7.8 per cent and 5.4 per cent per annum, with a decided upward tendency in the number of females.

In regard to causation he ascribed the greatest importance to syphilis, but believed that alcoholism should not be overlooked as a most important factor in the development of this disease.

The paper was discussed by Drs. Mickle, London; C. K. Clarke, Toronto; T. J. W. Burgess, Montreal, and H. W. Miller, of Taunton, Mass. A discussion on general paralysis was then opened by the president, Dr. W. J. Mickle, who dealt with the delimitations of the disease under the headings: Symptoms, Morbid Anatomy, Predegenerate Relations.

Dr. W. Alden Turner, London, expressed the opinion that in general paralysis and tabes dorsalis syphilis is the great predisposing factor in both disorders.

As far as exciting causes were concerned, they were to be looked for in trauma, alcoholism, nervous stress; or, perhaps, as Forbes Robinson has suggested, in intestinal autotoxis.

Dr. L. Harrison Mettler, Chicago, regarded paresis pathologically as another phase of the tabetic process; in other words, it was a primary cortical neurotic degeneration, and from this point of view the prognosis was practically hopeless.

Dr. J. O'Brien, Massillon, referred to some recent experiments he had made as the result of a study of Dr. Forbes Robertson's investigations. In 95 per cent of cases of paresis he obtained an organization similar to the Klebs-Loeffler, in other types of insanity only 2 per cent.

Animals inoculated with this bacillus developed the physical signs of paresis, and post-mortem examination revealed lesions similar to those seen in early paresis.

At the conclusion of the discussion Dr. A. T. Schofield, London, made a few remarks on some investigations he had made in the "new psychology."

WEDNESDAY, AUGUST 22, 1906.

"Cerebral Localization in the Study of Psychiatry." By Dr. Charles K. Mills, Philadelphia:

Dr. Mills began with a brief review of literature and personal

observations concerning hallucinations and delusions; taking the view that these symptoms, regarded from the psychological standpoint, never occur as the result of the irritation, instability or discussion, or a combination of these, caused by lesions limited to cortical areas or centers of the senses condition in these phenomena.

The phenomena, when they arise to the plane of insane delusions require for their development, description, or disassociation of the mechanisms which associates not only these centers with each other and with other parts of the brain.

He reviewed many personal cases of coarse focal disease and then took up the question of diffuse distinctive bacteriological disease, such as cerebral syphilis and progressive pre-senile dementia of paresis in which delusions and their genuine insane phenomena are present.

He referred also to observations by K. Schäffer and others on lesions of paresis in their relations to association and projection areas.

Personal observations were related on the anatomological and morphological peculiarities of the cerebral syphilis in cases of paranoia and in low types of brain generally.

This paper was discussed by Drs. C. H. Hughes, St. Louis; L. H. Mettler, and Mickle.

Dr. John Turner, Brentwood, England, expressed his views regarding the relation of epilepsy to changes in the blood and central nervous system.

He believes that epilepsy is a disease occurring in persons of defective nervous organization, who have, in addition a morbid condition of the blood, which shows a tendency to intervascular clotting. The immediate cause of epileptic seizures, of any type, is stasis of the blood streams, resulting from blocking of cerebral cortical vessels by intervascular clots.

This interesting paper was beautifully illustrated by many lantern slides.

Drs. Chas. K. Mills and W. R. Spratling took part in the discussion; Dr. Spratling expressing the opinion that the cause of epilepsy was to be looked for in other directions.

Dr. Alden Turner, London, opened a discussion on epilepsy

and psychic fits, during which he discussed epileptic equivalents, epileptic ambulatory automatism, masked epilepsy, and other psychoses of this order. Reference was also made to impulses, catatonic and transitory delusional states, psychasthenic conditions, and psycho-epilepsy.

Dr. Mickle dwelt on the varied mental states which occur as epileptic equivalents on the one hand and on the other mental besetments or psychasthenic obsessions.

He referred to Janet's views, from which he dissented most strongly.

Dr. C. K. Mills thought a distinction should be made between psychasthenic and epilepsy.

Dr. Spratling referred to the extreme rarity of purely psychical attacks without epilepsy, only 1/5 of 1 per cent could be classified as such, in his experience.

Psychic epilepsy in association with the classic forms occurs in 5 per cent of cases.

He dissented from the commonly accepted view, that epilepsy is an incurable disease and was satisfied that a large proportion of cases could be cured if treated properly in the early stages.

As for the pathology, well, neuropathology ceased to be taken seriously at the New York State Colony for Epileptics, at Sonyea, and they were now searching the body of the living epileptic to find the cause of disease rather than expending valuable time in attempts to determine the pathology of the disease.

Dr. Spiller, Philadelphia, referred to the attempts of Friedman and Oppenheim to separate from epilepsy certain groups of cases, usually classified as such. The speaker detailed the history of a case under observation by himself for several years, which might be recorded as one of psychic epilepsy, but which he considered as belonging to the psychasthenic group of cases.

Thursday, August 23, 1906.

Dr. Crothers, Hartford, read a paper on the insanity of inebriety.

It was discussed by Drs. Hobbs, Guelph, Ontario; Langdon Down, London; Adolph Meyer, New York, and J. J. Williams, Ontario.

A discussion on dementia præcox was opened by Dr. C. K. Clarke, Toronto.

He referred to the varying importance attached to the classification by American authors; one recent writer devoting three and a quarter pages to a consideration of it; another no less than forty pages.

Ill-digested results, based often on insufficient observations, were too frequently published as facts. The name must be regarded as tentative, but must be tolerated for the present. Prognosis is likely to be the basis of future classification. Authors were, in his opinion, too widely apart when treating of the genesis of this form of dementia. There was a distinct danger in America of straining the classification to an absurd extent; some alienists going so far as to include 40 per cent of all cases admitted to hospistals for the insane under this heading.

There is a definite place for dementia præcox, and the aim of the true scientist is to determine this by accurate and careful study.

Discussing paranoid cases, the view was advanced that these developed earlier than was generally supposed.

Until we understand the pathological basis it cannot be possible to speak absolutely of symptom pictures, found in certain deterioration processes and simulated in others. The toxic theory may be accepted only as a partial explanation of the development of this disease; the question is much more complex than that.

The unfavorable prognosis was discussed at some length.

Dr. Adolph Meyer, in an elaborate paper which excited much favorable comment, urged the psychiatrist to aim at reaching a conception of this symptom-complex which would emphasize factors at work, rather than merely probable prognosis.

Dr. Meyers' thoughtful paper will be published in full in the *British Medical Journal.*

Dr. F. X. Dercum, Philadelphia, insisted upon the purely functional character of the symptoms, at first, and the revealing of the oncoming dementia.

He regards the term as objectionable because it implies a quantitative mental loss. He was greatly impressed by the great factor of the neuropathy present, which implied not only structural

defects during development in the nervous system, but also arrest of the organism as a whole, so that all of the other tissues of the body are, probably, structurally defective. In this case, on the approach of puberty the strains of life accumulate. Proper adjustment to the environment is inadequate and then all function becomes aberrant.

Two elements are present: a defective nervous system and an abnormal nutrition, and whether in a given case recovery ensues, depends largely upon the amount of arrested development. He spoke of the great amount of good to be accomplished in early cases by therapeutic methods: rest, full feeding, and massage.

Dr. A. Robertson, Glasgow, preferred the term adolescent insanity, which had the advantage of committing no one to an absolute expression of opinion regarding prognosis. He thought there was no need for the new nomenclature. He agreed very much with Dr. Dercum, in prolonged and persistent treatment of cases.

Remarkable differences of opinion existed between distinguished observers. Bianchi asks if there is any need for this new nomenclature and doubts the possibility of diagnosing the condition in many cases. That was the speaker's position. He preferred the term adolescent insanity, which commits one to no absolute opinion.

He admitted that this term was vague but was free from committing us to an opinion which conveyed a plan of hopelessness to the friends.

Dr. A. T. Schofield, London, thought that we should all agree with the last speaker, that if the term adolescent insanity held out more hopes of cure than dementia præcox we should all adopt it.

In his experience these cases commenced by simple hysteria, and if there is a bad family history, passed by slow degrees into dementia, which, if incurable, we term dementia præcox.

Early diagnosis is of no great value, as it seldom carries with it any curative therapeutics.

It appeared to Dr. E. N. Brush, that we were permitting the discussion to degenerate into a talk about terms rather than con-

ditions. It mattered not whether we called these cases dementia præcox or adolescent insanity so long as we knew them, which we would never if we fixed our attention upon names rather than symptoms or etiological factors.

He granted that, at present, the condition was hopeless, but possibly by more careful study of the individual and his environment we may be able to take from this large group, which some may prefer to call one thing, some another, a certain number of cases for whom we may predict recovery. The great and most important point, therefore, to keep in view was not the name under which or class into which we would group these cases, but a careful systematic study of physical and mental symptoms, of family history, environment, and as far as possible, the following out of individual cases to the end.

Dr. Hobbs desired to know how Dr. Meyer would harmonize the view of gradual deterioration of function with Dr. Dercum's explanation by neuropathy and nutrition disorders.

Dr. L. H. Mettler, Chicago, thought this and all similar discussions failed to lead one to any definite knowledge, because we were trying to crystallize into a nosological entity a disease with definite symptoms and etiology, something that could not be so crystallized.

As Dr. Meyer had shown, the question to be determined was the individual patient's reaction. This might be from a mere neurasthenic hysteroid type, all the way up to a violent outburst.

All Kræpelin did was to show that so-called defectives, at a certain age or period of stress revealed their deficiencies. For thus calling attention to this defective class all honor was due to Kræpelin, after all neither he nor others, who discuss this question seem, to the speaker, to be making much progress in the constructing of dementia præcox into a nosological entity.

Dr. Adolph Meyer, in reply to criticisms, would not object to the term adolescent insanity if it were more definite, and if many cases did not develop the disease entirely, long after adolescence; although some people never leave the adolescent stage, others never reach it.

The contention of Schofield that many begin with hysteria, shows exactly that it would be more important to consider this fact and to conceive a sure and adequate idea of hysteria than

argue about names, a point of view, which leads to a study of the gradual operation of many factors at work, will be of greater practical and theoretical value than trite medical speculation.

Dr. R. R. Rentoul proposed sterilization of certain mental degenerates. Showed that degeneracy existed in proportion of 1 to 1000 population.

Dr. Farrar, Baltimore, read a paper on " Types of Devolutional Psychoses." His paper dealt with the insanity of senescence, particularly the depressive states of the präsenium, during which period are to be distinguished the accidental and the truly epochal psychoses. Taking as a type melancholia vera, an involutional autopsychosis representing a biologic differentiation of the depressive phase of maniaco-depressive insanity, two other clinical forms were described: (*a*) anxietas präsenilis, an involutional allopsychosis of unfavorable prognosis attacking chiefly women; (*b*) depressio apathetica, a hypopsychosis seen more commonly in men, and apparently of less dubious prognosis.

FRIDAY, AUGUST 24, 1906.

Dr. A. T. Schofield, London, opened a discussion on mind and medicine. Briefly referred to the fact that the great influence of mind is a force in medicine although it was universally practiced and not taught. The whole field was left to be exploited by quacks.

He urged that the morning of the last day of the session should be devoted to papers and discussions upon the study of the sound mind in relation to disease; as the study of insanity has almost monopolized this section.

Prof. Mark Baldwin urged the importance of the study of normal psychology by medical men.

It was the duty, not merely the right, of the medical profession to keep pace with the progressive psychology.

He suggested that two great ideas of current psychology recently worked out should be embodied in medical training.

Dr. E. N. Brush, Baltimore, referred to the fact that both in France and Germany this matter was receiving great attention, and that many psychiatric clinics had well-equipped laboratories for the study of physiological psychology.

Dr. Schofield briefly replied, and in the absence of the author, read a paper by Paul Dubois upon "Rational Psycho-Therapeutics."

Dr. Ryan, Kingston, Ont., read a paper on "Application of Modern Hospital Methods for the Treatment of Insane," and Dr. D. J. Moher, Brockville, Ont., on "Occupation as a Factor in the Treatment of Insane."

At the conclusion of the session a vote of thanks was offered and enthusiastically adopted to the chairman, Dr. Mickle, for the able and impartial manner in which he had filled the chair and guided the proceedings.

C. K. C.

Notes and Comment

THE MEETING OF THE BRITISH MEDICAL ASSOCIATION IN TORONTO.—We are able, through the kindness of Dr. Clarke, of Toronto, to publish in this number of the JOURNAL an abstract of the proceedings of the Section on Psychology of the British Medical Association at its meeting in Toronto in August last.

The papers presented in this Section were generally of a high order, and provoked, many of them, an animated and interesting discussion. It is to be regretted that there was no stenographic report of these discussions, as some of them were of a character which, if published in connection with the papers to which they related, would be of much interest and value. This is particularly true of the discussion on Dementia Præcox as it illustrated to a striking degree the corservatism of the English medico-psychologists. The paper of Dr. Adolph Meyer was of great interest and particularly so as it stated succinctly the mature views of a most careful clinician and may be therefore regarded as an epoch-marking production.

As would naturally be expected the Canadian physicians, and indeed the citizens generally of what has been truly named "Greater Britain" were most cordial and hospitable in their treatment of the English and American visitors.

To those engaged in psychiatric work the reception of the visiting members of the British and American Medico-Psychological Associations was of course particularly gratifying. The dinner given by the government at the Toronto Asylum for the Insane brought together a large and congenial assembly of medical men with mutual interests and ambitions.

It afforded, in view of the plan which we understand is under consideration of abandoning the present buildings of the Toronto Asylum, an opportunity, in the *post-prandial* speeches, to point out to those members of the government who were present and who were apparently interested auditors, the opportunity afforded, if this plan is carried out, of making a departure in the care, treat-

ment, and study of insanity which would place the Canadian administration of its hospitals for the insane on the advance line. The Toronto University authorities have succeeded most happily in unifying and affiliating the most excellent institutions of that city devoted to higher education, and this is particularly true as relates to medical education, and the opportunity presented in the reconstruction and incidental changes in methods of the Toronto Asylum to establish a psychiatric clinic ought to be pressed upon the attention of those in authority, both in the Government and the University, and made the most of in the proposed changes.

The material for study and for clinical purposes is ample and the present head of the asylum stands ready to make the most of it. The advantages, both to the patients, who will be sent to the institution, and to the candidates for medical degrees, cannot be overestimated.

At present Dr. Clarke, with the large number of patients under care, and the large annual admission rate, is seriously handicapped by the limited number of assistants he is permitted to appoint. Economical as such a policy may appear when viewed from the light of annual *per capita* cost, it is in fact a most wasteful and extravagant policy, both as relates to the real care of those whose treatment and custody is assumed by the Province and in the waste of opportunities which are of exceptionable value, for the systematic study of all that relates to the causes, care, treatment, and prevention of insanity, and the training of medical men to commence the work where it really must be undertaken, if at all, at the inception of the attacks of insanity in private practice.

The opportunity presents itself, the necessity is urgent, will those upon whom the responsibility rests appreciate the importance of their position?

The University of Toronto, at a special convocation on one of the days of the session of the Association, conferred the degree of LL. D. upon the following members of the medical profession, all of whom, with the exception of H. Langley Browne, M. D., Ch. B., F. R. C. S. Edin, were present to receive the degree: Thomas Clifford Albutt, M. D.; H. H. Freeland Barbour, M. D.; Sir Thomas Barlow, Bart, M. D.; Sir James Barr, M. D.; Sir William Henry Broadbent, Bart, M. D.; George Cooper Franklin, F. R. C. S.; William Dobinson Haliburton, M. D.; Sir Victor Horsley,

M. B.; Donald MacAlister, M. D.; William Julius Mickle, M. D.; Mle Docteur Lapicque, of Paris; Ludwig Aschoff, M. D., of Marburg, Germany, and Dr. W. J. Mayo, President of the American Medical Association.

The ceremony connected with conferring these honors was most interesting, and President Hutton was most happy in his brief remarks in conferring the degree as well as Dr. Reeve, in his somewhat more difficult duty involved in presenting the different candidates.

Dr. Mickle, whose conduct as chairman of the Section on Psychology, received warm commendation, has now the honor of three degrees from the Toronto University, having graduated there in both the academic and medical departments.

The cermony was conducted with a regard for traditional University usage, which made a decided impression upon those who were present who were accustomed to the somewhat less formal methods in vogue in universities and colleges in the United States. Those who had been in attendance at the meetings of the Psychological Section were particularly gratified at the selection of the chairman of the section as one of the recipients of the honors conferred.

Joint Meeting of the American and British Medico-Psychological Associations.—At the annual meeting of the American Medico-Psychological Association in Boston in June last, and of the Medico-Psychological Association of Great Britain and Ireland in London in July, each Association appointed committees to take into consideration and, if possible, arrange for a joint meeting of these two bodies, engaged in the study of the same subject, and having aspirations and interests very much in common. The membership of the British committee is not yet, we believe, announced, but the selection of Dr. A. E. Macdonald as chairman of the committee of the American Association gives promise that as far as he and his committee are concerned everything possible will be done to bring about this most desirable congress of English-speaking psychiatrists.

Dr. A. R. Urquhart, of Perth, Scotland, of the editorial board of the Journal of Mental Science, we believe first suggested that an attempt be made to arrange for a meeting of these two Asso-

ciations, and we trust that he has been made a member of the committee of the British Association.

The recent meeting of the British Medical Association in Toronto and the presence of a large number of the members of the American Association at the session of the section devoted to psychological medicine is not only an example of what can be accomplished, but of the desire of physicians engaged in psychiatrical studies on this side the ocean to meet those engaged in the same work in Great Britain and to exchange views and experiences with them.

There are frequent congresses of physicians working in this special field speaking the French or German tongue, the membership of which is not limited to any one country or continent, why not therefore a congress of those speaking the language common to the United States, Canada, and the British Islands?

A WELL-EARNED VACATION.—Our readers, we are confident, will join with us in congratulating the senior member of the editorial board, Dr. Henry M. Hurd, upon the fact that the managers of the Johns Hopkins Hospital, of which, since its opening, he has with such signal success filled the position of superintendent, have requested him to take a year's vacation.

We congratulate Dr. Hurd upon this recognition of his work for the hospital, and at the same time can but regret that we shall be deprived of his valuable counsel and assistance in the conduct of the JOURNAL. We do not know that he has yet made any definite plans for his year's rest and recreation, but understand that a considerable portion of his time will be spent in foreign travel. He cannot, we are confident, even in this vacation period, wholly lay aside his interest in professional matters, and especially in hospital administration, and those among whom he goes will have occasion to recall when he again returns to duty that there has been "A chiel amang" them "tacking notes," and we take occasion to express the hope, without desiring, however, to suggest anything which shall seem like work, for this play spell, that if anything strikes him as of interest to the readers of the JOURNAL we may have an opportunity of printing some account of his observations.

We are sure that we express the feelings of his many friends,

among whom may be counted all of our readers, in wishing him *bon voyage*, a pleasant resting spell, and a safe return with renewed vigor and activity.

NURSING AND NURSING SCHOOLS IN HOSPITALS FOR THE INSANE.—We publish in this number of the JOURNAL a series of articles upon nursing and schools for nurses in hospitals for the insane from various points of view, together with an interesting discussion which followed the reading of these papers at the annual meeting of the Association, in Boston, in June last.

At the risk of attempting to touch upon points already fully treated we wish, in calling attention to these important papers and the discussion of the same, to comment upon certain phases of the subject which appear to us pertinent thereto.

For many years now general hospitals all over the country have been conducting as part, and an increasingly necessary part of their work, training schools for nurses, and the trained nurse, has become a necessary factor in the care and treatment of medical and surgical cases, as well in private practice as in hospital work.

As time has added to the experience of those conducting these schools the standard of teaching as well as of the requisites for admission to the courses given, has been raised in all training schools and the course of instruction prolonged.

For ordinary medical and surgical cases little or nothing has been lacking, as far as professional training is considered, in the graduates of the majority of these schools, who have offered their services in private nursing. When, however, for certain neurological cases, and all mental cases there has been sought by either the physicians in charge of such cases, or the families in which they have occurred, competent trained nurses, a serious, and to many a surprising, lack of material has been found. This has been especially true when trained men have been sought for service in nervous or mental diseases.

The cause of the general lack of nurses is not far to seek. The trained mental nurse is somewhat new in the general field of nursing. Nurses in general hospitals receive no instruction of any value in either neurological or psychiatrical cases, and have

absolutely no experience, beyond that gained in caring for ordinary delirium, with mental cases.

Such cases of neurasthenia or hysteria as fall under their care during their hospital course are not, and we say this with all due respect to the physicians in general hospital practice really appreciated as far as the importance of good nursing, trained observation, and methodical methods are concerned, and the hospital nurse when confronted by such cases, or invited to do work in a hospital for the insane, until trained into the spirit and importance of the work is too apt to feel that she has nothing to do, beyond being a companion, or, what to her appears still less professional in its aspects, a watch or guard upon a patient who may harm himself or someone else.

Because observations upon temperature, pulse, and respiration are not considered essential matters in every case, the nurse who has not been trained to observe, and therefore does not appreciate the importance of conduct and conversation looks upon these as curious, possibly to her interesting, because unusual, features of the cases, but of no medical importance either in the way of diagnosis, prognosis, or treatment. Moreover having had to do mainly with cases who readily follow direction and fall into the prescribed routine, she has not had developed that tact, after all an inborn quality, but susceptible of development and training, which contact with, and work among, mental cases brings out to its best.

The attitude taken by the nurse trained in a general hospital in assuming the care of a mental case shows too commonly her ignorance of the real conditions she has to cope with and the real importance of her work. The nurse is, or should be, the aid of the physician, as much as the caretaker and custodian of the case. In his absence she must be for him eyes and ears, to note not only the symptoms or changes which present themselves, by instruments of precisions, as for example the thermometer, and to record the administration of nourishment and medicine, but to note those more important features in the progress of the case which only those trained in their importance, and the methods of observing, making note thereof, appreciate. These features relate to the conduct of the patient, his or her

conversation, delusions, fancies, hallucinations, or illusions, which the physician in private practice with but infrequent contact with his patient may not observe in detail, and which the hospital physician, if he appreciates the importance of a continued and well-taken history of his case, is anxious to have carefully observed and intelligently recorded.

Too often, we believe the nurse, even in hospitals having to do wholly with mental cases, fails to have impressed upon her the importance of these observations and of carefully recording them, and of her real value as an aid to the hospital staff, and as an agent in the study of mental cases. Too often also, the candidates accepted for nursing schools in hospitals for the insane do not possess the preliminary training or education requisite to this most important part of their hospital work.

As to male nurses, as was pointed out in the papers read, and in the subsequent discussion the work has not been made sufficiently attractive to them, either in its aspects as a wage-earning occupation or in the higher view of a useful and honorable calling.

Men in hospitals, either general or special, are too commonly, we believe, assigned to some menial duties, looked upon too often as of use because of their physical strength rather than encouraged to put into operation their mental qualifications.

While the demand for trained male nurses may not be as great as that for women it is greater than the supply, and the remuneration offered is such as ought to attract as high qualifications as is now demanded, and rightly demanded of women candidates for entrance to nursing schools.

As to women nurses upon male wards in hospitals for the insane, we are heartily in sympathy with their employment, and we believe the time is not far distant when they will be found in most of the wards in all of our hospitals. Their employment, however, should not, and we trust will not, cause the fact to be lost sight of, that a higher grade of male nurse can be attracted by having brought before them the usefulness and dignity of the calling; its real value as a work which to qualified men will bring ample remuneration.

We have never forgotten the epigrammatic remark of a well-

known superintendent, now dead, to an attendant who asked permission to restrain a particularly troublesome patient. He said: "Not until you have tried every other means. Put your brains above the level of canvas and leather and you'll find canvas and leather unnecessary."

When men of higher intelligence than is, or has been, supposed to be necessary in mere caretakers expected to perform to some extent the duties required of jail-wardens, are attracted to the service of hospitals for the insane, and given the same training and put upon the same standard as women nurses, the problem of the best care of patients will be to a large extent solved, as it is now solved in general hospitals.

DEATH OF DR. ROBERT J. PRESTON.—We regret to announce the death in New York, while on his way to the meeting of the British Medical Association, of Dr. Robert J. Preston, Medical Superintendent of the Southwestern State Hospital, at Marion, Virginia.

Dr. Preston was elected President of the American Medico-Psychological Association at its meeting in Milwaukee in 1901 and presided at the meeting in Montreal in 1902. In 1887 he became connected, on its opening, with the hospital of which he was at his death Superintendent, as assistant physician, and the following year was appointed Superintendent on the death of Dr. Black, the first Superintendent. We hope to publish in the next number of the JOURNAL an extended notice of his life and work.

Half-Yearly Summary.

CONNECTICUT.—*Hartford Retreat, Hartford.*—From the last annual report of this hospital it is learned that a number of improvements are in progress. These are: the change of the upper story of the administration building formerly used as a chapel to quarters for a clinical laboratory, a room to be used as an assembly room and lecture room for nurses and attendants, and a room for electrical apparatus. The establishment of a training school has been delayed, but a class is expected to be formed this fall and the school inaugurated. The appointment of an interne is recommended to assist in the clinical work. The death of Dr. Stearns is alluded to, but a notice has already appeared in the JOURNAL. Note is also made of the death of the supervisor, Andrew J. Sizer, who entered the employ of the Retreat in 1856 and served 47 years.

During the year the hospital admitted 162 cases, of whom about 60 per cent were voluntary admissions; 138 were discharged during the year; so that the number remaining at the end of the year was somewhat higher than that at the beginning.

DISTRICT OF COLUMBIA.—*Government Hospital for Insane.*—$75,000 was appropriated by Congress for the construction of an assembly hall. The reservoir to be used as receiving tank is completed, and will have a capacity of 125,000 gallons.

GEORGIA.—*State Sanatorium, Milledgeville.*—An appropriation of $10,000 has been made for the erection of a building for the isolation of insane consumptives.

ILLINOIS.—The State Board of Charities in its quarterly Bulletin urges the necessity for reform in administration of the State hospitals for the insane. Standardization is necessary to elevate the institutions to a high plane of efficiency and economy, at the present time no two institutions being administered in the same manner. The superintendents are so burdened with business detail that they are unable to give proper medical attention to the patients, and for this reason the hospitals are characterized as being more like detention boarding-houses than hospitals for the medical treatment of the insane. The recent investigation at Kankakee has probably drawn the attention of this board more forcibly to defects in the mangement of the hospitals. At that time there was found an insufficient number of attendants, so that the patients could not be properly cared for.

—*Illinois Northern Hospital for Insane, Elgin.*—A training school for nurses and attendants will be opened at this hospital on October 1. The school will have a three-years' course, and considerable improvement in the nursing is expected.

—*Illinois Eastern Hospital for Insane, Hospital, Ill.*—A training school with a three-year course has been inaugurated. At a joint meeting of the trustees of the hospital with the Board of Charities it was decided to begin a number of improvements in the system of nursing, especially in regard to night supervision and medical attendance. A pathological laboratory with a pathologist, who will also act as instructor to the medical staff in special methods of case examination, is also under consideration.

—*Illinois Asylum for the Incurable Insane, Peoria.*—The movement of population of the Illinois Asylum for the incurable insane for the first six months of the present calendar year is shown in the following statistical table:

	Males.	Females.	Total.
Total number present January 1	757	706	1463
Since admitted (new)	82	276	358
Former inmates readmitted	1	3	4
Discharged	6	6	12
Died	32	50	82
Total number present June 30	799	930	1729

Since June 30 another hundred has been added and it is expected that the population will reach 1900 by the close of the year, it being the scope of this institution to relieve the almshouses of the residual population returned from the other state institutions in times past. The increasing infirmities incident to the advanced age of the inmates demanded an increase in the hospital facilities and two of the large congregate dining halls were converted into hospitals, accommodating sixty-five patients each. They are equipped with every modern convenience and serve their purpose admirably.

Classification has taken up much time and necessitated many changes. Eight hundred patients were transferred from cottage to cottage in a single day.

There are in addition to the two hospitals, three cottages designated as women's infirmaries, three as men's infirmaries, and a cottage for men and women epileptics exclusively. The segregation of the epileptics has shown excellent results. Women attendants are in charge of the colony for epileptic men both night and day. In placing women in charge of insane men the superintendent was many times warned as to the viciousness of epileptics, but experience with this class, as with the other 700 men cared for by women nurses, has again demonstrated the superiority of woman as a factor in controlling unruly insane men.

No improvement of the year has given greater satisfaction than the

recently constructed tent colonies for consumptives. Each colony consists of a large central tent to which five individual canvas houses are attached by covered passageways that permit entrance to each without exposure. The colonies are occupied by sixteen women and ten men respectively. They are intended for all the year round use and the problem of heating them has yet to be solved.

A handsome sun-dial was set up and dedicated on Labor Day, and in order that the principles on which this institution is conducted may not be lost sight of the following inscriptions were cut into each face of the stone base: "Eight Hours Labor," "Non-Imprisonment," "Non-Restraint," "Non-Resistance." Every portion of the institution was thrown open to public inspection and more than 3000 visitors availed themselves of the privilege.

Of Dr. Dunn, who has recently left the institution, the superintendent says: "Dr. Dunn's short service here not only proved her worth but demonstrated how indispensable a woman physician is to the successful prosecution of our work."

INDIANA.—*Northern Indiana Hospital for Insane, Longcliff, Logansport.*—This hospital reports the construction of two additional buildings for patients, with capacity, respectively, for 70 women and 70 men. The building for women contains two wards on the horizontal house plan, that for men is on the vertical house plan and is intended for the accommodation of patients who are regularly engaged in work on the farm, in the dairy, garden, and other outside departments of the hospital, together with the attendants and employes who have charge of details. This building is equipped with its own dining-room, kitchen, and other offices, to the end that its inmates may lead a separate and independent life from the rest of the hospital, after the manner of an ordinary farm home on a large scale. Both these buildings will be heated by hot water, each having its own independent system. Adjacent to the building for men is a commodious bath-house, to be equipped with an approved system of immersion, shower, needle, and jet baths, for general and therapeutic purposes for the use of the entire department for men.

The conduit system is being used for the placement of all electric wiring. Dining-rooms, kitchens, and pantries are lined with white sand-lime brick, to be finished in enameled paint. Bath-rooms and water-closets are lined with enameled brick. Outside ex-curved wire guards will be used where necessary. Experience of the last few years has shown this type of window guard to be not only greatly cheaper but very much better and more convenient than any other heretofore used. Cylinder locks will be used throughout.

Average number under treatment for six months:

	Men.	Women.	Total.
	450	404	854
Admitted during six months.....	35	45	80
Discharged during six months.....	45	21	66
Died during six months.....	16	19	35

MICHIGAN.—*Eastern Michigan Asylum, Pontiac.*—This hospital, with a capacity of about 1230 beds, is filled to its capacity. There have been no additions to its facilities for the care of patients for several years. An infirmary building for women is now approaching completion and will add one hundred beds to the capacity of the institution.

During the fiscal year ending June 30, 1906, there were received 113 men and 91 women, a total of 204. There were discharged by death 49 men and 32 women, a total of 81. There were discharged otherwise than by death 68 men and 66 women, a total of 134.

Dr. Barrett, Medical Director of the Psychopathic Ward at Ann Arbor and Pathologist of the State asylums, has announced that a course for the instruction of assistant physicians of the Michigan asylums will begin on October 1. The course as planned consists: 1st, of lectures and conferences on the examination, diagnosis, and clinical symptomatology of the various forms of mental diseases; 2d, a review of the various schools of psychiatry; 3d, clinical study of the patients in the psychopathic ward with preparation of case histories, ward notes, and the application of various methods of therapy; 4th, a laboratory course in the methods of technique for the study of the central nervous system; 5th, a course in the anatomy and histology of the central nervous system; 6th, a course in the pathological changes in the central nervous system in mental diseases.

—*Upper Peninsula Hospital for the Insane, Newberry.*—A cottage, with basement, and two stories, having a capacity for fifty, has been completed, and is occupied by convalescent male patients.

A number of new instruments have been added to the surgical equipment, and elevators are soon to be installed, so that the operating rooms may be more accessible.

A new bake oven and bread moulder has been installed at a cost of $2595.

A concrete storage reservoir with a capacity of 108,000 gallons is being built. This will afford much-needed fire protection.

A 100-foot piggery is being built of cement blocks.

A battery of two Stirling boilers, rated H. P., 190 each; also a 13 x 12″ McEwen engine, direct-connected to a 50-K. W., 250-volt, direct-current generator, has been installed.

MISSOURI.—*St. Louis Insane Asylum, St. Louis.*—The institution has at the present date 640 patients, which is an excess of 250 over its comfortable capacity; the overflow, or "incurables," numbering 910, are now housed in the insane department of the City Poor House, which is under the superintendency of a non-medical man. The institution is also boarding 100 patients in State Hospital No. 4, Farmington, Mo. As it is one of a few entirely supported from the city's revenue and caring for its insane poor, its accommodations and improvements are entirely in the hands of the city's officials.

During the present year, the overcrowded and unhappy condition was

recognized, especially by Mayor Wells, who at once originated the plan of relief by advising the issuance of bonds to the amount of $1,000,000 for additional buildings and improvements of the present one. This issue was voted upon affirmatively during June of this year. The plans are now in the hands of architects, Milligan and Wray, men of practical experience in this especial work, who have built numerous institutions for insane, among them Mt. Hope in Baltimore.

It is intended to build, on the connected corridor plan, a perfect fireproof building to house not less than 1600 patients in addition to those that can be comfortably accommodated in the present building; the number of patients pro rata to halls are not to exceed 40, pro rata of nurses to patients, 1 to 10. In addition to the above, there will be a building some distance from the main building for the disturbed and maniacal class, affording safe and separate quarters for each individual. The "Observation Ward," now and for some years in the City Hospital, will be removed into this building, affording a more intelligent study of the incipient stages of cases admitted.

There will also be a hospital for those somatically sick, and neurotically bed-ridden. Also two nurses' and employes' homes, an entertainment hall, chapel and workshops, and a residence for the superintendent.

The present grounds contain 29 acres, occupying the highest elevation in the city, and as the institution must be located in the city, the site could not be bettered from a hygienic and sanitary standpoint.

The excavations for building will begin in a short while, and probably finished within eighteen months, when all the city's insane will be returned here, and placed under professional care.

Psychological work has been especially insisted upon during the passing year, special attention being paid to anthropological measurements, stigmata, etc. During the year 600 cases have been measured and stigmata noted, a report of the same being now in the hands of the printer.

AVERAGE NUMBER OF PATIENTS.

Male.	Female.	Total.
372.4	263.3	635.7

ADMISSIONS.

Male.	Female.	Total.
123	80	203

DISCHARGED.

	Male.	Female.
Recovered	7	5
Improved	35	18
Unimproved	6	9
Not Insane	2	1
Deported	3	3
Total	53	36
Died	27	10

NEBRASKA.—On May 8, Governor Mickey requested the resignations of Dr. James M. Alden, superintendent of the State Hospital, Norfolk, and of Dr. Frank Nicholson, on account of friction which made the proper administration of the hospital impossible. These resignations were not forwarded, so that on July 12 the above were ordered by the Governor to vacate their offices, but refused to obey, so that the Governor has appealed to the courts. Dr. Nicholson later resigned.

—*Nebraska Hospital for the Insane, Lincoln.*—Following is the movement of population of this hospital for the six months ending May 31, 1906:

Number present at the beginning of the period	611
Number received	288
Number discharged, transferred, and died	459
Number present June 1, 1906	538

NEW YORK.—*Dannemora State Hospital, Dannemora.*—The population at this institution is increasing at the rate of about 30 a year, and as the institution was opened for patients before the erection of the administration building or congregate dining hall, it has been impossible to provide new room for patients to keep pace with the increase. The population is now 285, which seriously overcrowds the institution. Patients are sleeping in day rooms and basements. The congregate dining hall has been practically completed during the past year and will soon be opened for use.

A new laundry has been installed in the basement of the dining-hall building, and provision is made on the second story for a chapel and recreation hall.

A store-house and root cellar are nearing completion, and a new stable is in process of construction.

Ground is being broken for a new ward, which will accommodate 75 patients. The plans provide for an institution which, when completed, will accommodate 650 patients.

As this institution is frequently confused with the one at Matteawan as regards the class of patients cared for, it should be stated that the Dannemora Hospital is exclusively for male convicts who have been pronounced insane while undergoing imprisonment for felony.

—*Manhattan State Hospital, Ward's Island, New York City.*—Since the last summary was issued no new buildings have been constructed. The medical work has been continued as heretofore. A few changes have occurred in the medical staff, which are noted below. The following improvements have been made during the six months:

The re-plumbing of wards 48, 52, 55, 59, 60, and 61 has been completed, and the plumbing in wards 36, 39, and 42 has been renewed. This will complete the re-plumbing of the buildings of the east division, and all wards will be equipped with modern appliances.

A new engine and generator, mentioned in the last report, have been installed. Work on the switchboard is now proceeding, and this addition to the plans will soon be in use.

The work of re-wiring the laundry and supplying new laundry irons has been completed.

An addition has been built to the kitchen of the staff house, which was much too small. It is now more comfortable and better adapted to the purposes for which it was intended.

An addition is being constructed to the dock house at 116th Street Dock, with corrugated iron roof and siding, covering the larger part of the dock. This will provide more storage room and better accommodation during stormy weather for the large number of visitors who come to the island.

New window guards have been supplied on several of the wards of the main building, east division.

One hundred and fifty lawn benches have been supplied for the use of patients on the grounds.

A new ferry steamer has been purchased to replace the "Mermaid," which has been in service for many years. The new boat is much larger and provides better accommodations.

A new fire escape is being erected for the accommodation of employes occupying rooms on the fourth floor of the main building, east division, this place not having heretofore been provided with the proper fire escapes.

Material and labor have been allowed for the painting of the interior of kitchen No. 3 and adjoining dining-rooms Nos. 2, 3, 4, clerks' dining-room, and dining room No. 8.

Three hundred modern beds have been allowed to replace 300 old strap iron beds.

Cement sidewalks have been built leading from the passenger dock to the main office and to meet the brick walk leading to the east division.

Contractors are at work repairing and overhauling the heating system of the main building, east division.

In June last 22 women and 3 men were graduated from the training school. Twenty-four women and 4 men, who were in the junior class, successfully passed the junior examination and are now graded as seniors. Much interest is being developed in regard to the training school, and it is hoped that the coming session will be a very successful one. The school session was opened Friday, September 14, by an address from the superintendent.

Excursions for the benefit of the patients are given on the steamer "Wanderer" three times a week. These have been continued during the summer season and will be given so long as warm weather continues.

As heretofore, camps have been opened for the reception of acute cases. Plans have been drawn for the construction of two frame camps, somewhat similar to those already on the grounds of the hospital, to replace

the old tents. These frame camps are habitable both summer and winter, and are permanent.

During the hot summer months only necessary surgical work has been carried on.

The following statement is submitted regarding the average number of patients under treatment from April 1 to September 15, also the number admitted and discharged recovered, improved, unimproved, and died, by sexes, for the same period:

	Men.	Women.	Total.
Average number patients under treatment.	1727.2	2670.8	4398
Admitted	135	396	531
Discharged recovered	55	77	132
Discharged improved	64	90	154
Discharged unimproved	18	15	33
Died	83	105	188

—*Willard State Hospital, Willard.*—There have been no changes in the staff during the past half-year. The general medical organization is the same, though this has been improved in certain details. The laboratory work is now in charge of one member of the staff, and material from autopsies is carefully preserved and worked up for study. Considerable new equipment has been installed in the laboratory to facilitate this work. With this exception, there has been no change in the organization of the medical work.

The new cold-storage building is progressing rapidly, and will be finished during the present fall.

Work on the house on the Button property has progressed satisfactorily, and it is hoped to have this completed in the near future. This building is to accommodate twenty-five men patients. It is situated on the Lake Farm, north of the main portion of the hospital property, and will make the third farm colony at Willard; Hillside, with twenty-five, and Vinelands, with thirty patients, being the others.

Electrically-heated ironing machines have been substituted for the gasoline machines in the laundry. Four electric hand irons have been placed on the wards at the Pines to assist with the laundry work.

A new milk room at the farm barns is now in course of construction.

Many ornamental trees were planted about the grounds during the spring, and the appearance of the grounds has been improved in other directions. Some of the roads have been repaired and much new cement walk has been laid.

The old pumping station at the lake, which had been abandoned for some years, has been remodeled and fitted up as an evaporator for drying fruits and vegetables.

The official capacity of the hospital is now 2322, and the daily average population for the past six months has been 2264. During the same period 56 men and 63 women were admitted; 22 men and 19 women were dis-

charged recovered; 9 men and 8 women were discharged improved; 4 men and 5 women discharged unimproved; 1 man and 1 woman discharged as not insane, and 55 men and 21 women died.

—*Middletown State Homeopathic Hospital, Middletown.*—A building on the dormitory plan for the accommodation of over 400 patients is in process of construction. The building will be heated and lighted from the central plant, but will have its own kitchens. The construction of the walls has now reached the third story.

During the six months ending August 31, the daily average population was 1298. One hundred and thirty-three patients were admitted during that time. There were discharged:

Recovered	42
Improved	35
Unimproved	6
Dead	34
Not insane	1
Total	118

The doors of one more ward for men have been opened, so that now there are on parole about the grounds of the institution 164 men and 185 women—total 349, or about 27 per cent of the daily average population.

On June 21, the four-story building containing the amusement hall was destroyed by fire, with an estimated loss of $35,000.

—*Bloomingdale, White Plains.*—At the present time there is under construction at Bloomingdale a rear extension to the administration building, 46 x 60 feet, which is to contain in the basement mortuary rooms, a help's sitting room, and a therapeutic bath, of the best design, to be used in addition to the one which has already been in existence under the women's wing for the past 12 years. On the first floor, which is the same as the office level, there will be a laboratory on one side of the corridor, and on the other side, toward the south, two social parlors.

It is customary in this hospital a good many times in the winter to get the most intelligent patients and the officers together in an informal manner for card games, little dances, etc. These are in addition to the formal entertainments, which occur twice a week throughout the winter, and being of a more social character are greatly enjoyed by convalescent and comfortable patients, and are one of the means which no doubt promote their recovery. The second story will contain a suite of apartments for some one connected with the administration.

During the summer months Bloomingdale maintains a pavilion at a neighboring beach upon Long Island Sound, and on all fair days, except Sundays, parties of patients go over early in the morning, and remain for lunch, returning in time for supper, having a pleasant ride, and an oppor-

tunity to bathe in the salt water, changing their bathing clothes in the pavilion, and lunching upon the piazza overlooking the water.

It has also been possible to give parties of reliable patients sails upon the Sound in a launch on several occasions.

OHIO.—*State Hospital for Criminal Insane, Lima.*—A site for this new hospital has at last been purchased, and consists of a farm of 618 acres situated north of Lima, Ohio. The purchase price was $62,500. As no provision was made by the General Assembly to do more than secure the site, and the trustees of the proposed institution have not as yet been named, no further steps can be taken until the next session of the legislature.

—*Columbus State Hospital, Columbus.*—The tubercular tent colony, which has been established for over three years, is meeting with continued success. Although it has been a rainy season, the patients have been very comfortable, and many have made marked improvement.

There have been treated during the present year in the neighborhood of one hundred and fifty cases in this colony. Almost without exception the patients have shown quite marked improvement physically, except those in the very advanced stages, who have been rendered very much more comfortable.

There has been but little sickness in the institution during the last year; no epidemics of any kind.

The hydrotherapeutic equipment has become so much of a feature in the treatment of acute cases as to be almost indispensable. A trained masseuse and masseur are able to give all sorts of baths, such as the Turkish, Russian, electric light, sitz, foot, perineal spray, etc., in addition to massage. In cases of acute mania, manic depressive insanity, and melancholia, where eliminative treatment has so long been recognized as an important factor, this method of treatment is of undisputed value.

Clinical notes have been taken on all acute cases, and there is now a very fair collection of histories of all important cases.

The training school continues to be of great value, and the importance of training nurses for the care and treatment of the insane is realized more than ever.

Miss Matilda Unger, of Buffalo, New York, has recently been appointed head nurse.

At the last commencement seven nurses were given diplomas, and an address was made by Dr. E. J. Wilson, a prominent practitioner of Columbus, Ohio.

Arrangements are being made to erect three new buildings. The barn, which is in direct line with the new cottages, will be converted into a cottage for the care of the chronic incurable class of insane, and it is intended to erect a barn further from the main structure. Plans have also been drawn for the erection of a nurses' home. This will be the first nurses' home established in connection with State hospitals in Ohio. The

building is to be of colonial style, and will be able to accommodate about sixty nurses.

The institution has been very much overcrowded, so that the erection of additional buildings will be a great relief.

During the last six months 227 patients have been admitted. Approximately 1900 patients have been under treatment. Discharged, recovered, 34; unimproved, 7. Died, 58. On trial visit, 142. Of this number quite a large percentage will, of course, remain at home as recovered.

OREGON.—*Oregon State Insane Asylum, Salem.*—A fire at this hospital on July 27 caused damage of about $5000. It was confined to one ward, and, owing to the fact that the patients had been given weekly fire drill, they were marched quickly out of the building without any casualties.

PENNSYLVANIA.—The commission appointed by the Pennsylvania Legislature for the erection of a new State hospital for the criminal insane has been offered a site at Fairview, Wayne County, containing 625 acres, by the Delaware and Hudson Railroad Company in consideration of a price of $5. The Legislature had appropriated $10,000 for the purchase of a suitable site. The railroad company at first offered a site containing 425 acres, but as this was insufficient for the needs of the hospital 200 acres were added. The chairman of the commission states that the site is an ideal one, being upon an elevation of land of 2000 feet, so that on a clear day the Catskill mountains are visible. There are several small streams of water running through the property, and within a short distance are numerous lakes and other fresh streams of water. More than one-third of the entire property is under cultivation, and the remainder will require but little work to render it fit for tillage. As it is the intention to give the inmates plenty of out-door work this feature is of importance. Of the 500 inmates which it is proposed to have, a large percentage can be put to work in the fields, and the produce raised utilized for their maintenance. In one part of the property formerly used by the railroad company as a road bed there are culm banks estimated to contain sufficient coal to last twenty years. Surveys are being made, and as soon as possible plans for buildings will be made. Dr. Robert B. Lamb, superintendent of the Matteawan State Hospital, at Fishkill Landing, N. Y., will assist in the preparation of these plans.

—*Philadelphia Hospital, Philadelphia.*—A modern system of hydrotherapeutics is to be installed in this hospital for the treatment of the acute insane. The present building, which was erected to accommodate 800 insane patients, now contains more than twice that number, and plans are being made for the erection of a new hospital in the country outside the city.

TEXAS.—*North Texas State Hospital, Terrell.*—Three new buildings have been about completed at this hospital, increasing the accommodation by 500.

WISCONSIN.—*Milwaukee Hospital for Insane, Wauwatosa.*—The following improvements and additions have been made at this hospital during the last six months:

Gate pillars of Bedford stone and St. Louis brick have been erected at the main entrance, surmounted by ornamental copper light fixtures consisting of a cluster of five balls, each supplied with incandescent lamps.

A concrete sidewalk, 6 feet in width, has been laid along the entire frontage bordering on the highway, the entire length being 500 feet.

The new pavilion for tuberculous cases was opened recently, and is occupied by sixteen cases, men and women, who are in charge of a woman nurse for both sexes, both day and night. The population of this cottage is made up largely of senile cases in addition to the tubercular insane. This cottage is on the dormitory plan, with two single rooms for the only two tubercular cases, which are at present in the hospital. It is provided with a balcony for fresh-air treatment, and the south exposure is provided with a broad pavement, protected by an awning, which can be rolled back in fair weather. These patients practically live out of doors during the day, and as the entire sides of the building consist of windows, an ample supply of fresh air is assured during the night.

The annex to the general kitchen of reinforced concrete construction, 34 x 32 feet, is completed with rooms opening off and communicating with the cold-storage house, for milk scullery, pasteurizing apparatus, etc. The officers' kitchen has also been enlarged by an addition of two hundred square feet.

The new general storage building, 100 x 40 feet, in the rear of the power plant and skirting the railroad spur track is practically completed. It is constructed of cement brick, made by hospital labor last winter, and promises to be a most useful addition. It will contain the carpenter shop and morgue, storage for flour, cement, hard coal, and pipes and fittings on the side facing the railroad track, and on the other, the paint shop, tool shop, and other storage, all on the first floor. The loft will be used for the storage of onions and squash, and the basement for the storage of other vegetables. The space occupied by the morgue has no connection with any other part of the building or with the basement, being set on the ground in one corner of the building. This location is preferable to an isolated building for such purposes, as not attracting the attention of patients to it.

Work on the erection of an additional hot house, 100 x 20 feet, will shortly be begun.

The foundation for the staff house, south and east of the lake, is in progress, and it is hoped to have the structure under roof before extreme cold weather. This house will lodge the steward and family, the second assistant physician, bookkeeper, matron, and clinical assistant. The first assistant and third assistant physicians will retain their quarters in the administration building.

QUEBEC.—*Protestant Hospital for the Insane, Montreal.*—The water supply of the hospital is commencing to show signs of becoming inadequate under the present system of pumping it from the aqueduct, which is the sole source of the city supply. By the new system contemplated, it would be pumped direct from the St. Lawrence River, which lies three hundred yards from the buildings; a new pumping station is being built on the river bank.

A paint shop has been erected at some distance from the hospital buildings, as an additional protection in case of fire. In it will be kept the paints, oils, varnishes, etc., and the surplus supply of oil for use in the engineer's department. These materials were formerly kept in a room in the basement of the main building.

The new residence for the medical superintendent, donated and furnished through the generosity of Mr. G. B. Burland, of Montreal, is now occupied.

There is great need at this hospital for increased accommodation for patients; numerous additions to the seating capacity of the dining-rooms have been made, but the dormitories now begin to show overcrowding.

A new dynamo has been erected and in use some months, giving the institution light throughout the entire night. Formerly, after 10 o'clock the staff were dependent upon lanterns for sufficient light by which to transact all necessary business. The front avenue has also been lighted, which is a great improvement.

CHANGES IN POPULATION, MARCH 15 TO SEPTEMBER 14, 1906.

	Male.	Female.	Total.
Number of cases admitted	50	42	92
Discharged recovered	20	21	41
Discharged improved	7	8	15
Discharged unimproved	6	5	11
			67
Deaths	12	7	19

ONTARIO.—Institution affairs in the Province of Ontario are not being neglected by the present Government, and several distinct advances are promised at an early date.

The problem of the care of sane epileptics has engaged attention, and an institution for their care and treatment has been opened at Woodstock. Some eighty patients are provided for, and the hospital will accommodate about five hundred when completed.

During the present session of the legislature the Hon. Mr. Hanna, who takes a keen interest in the advancement of treatment for the insane, introduced important legislation, which it is hoped will do away to a large extent with the abominable gaol and warrant system of admission.

Under the new order of things, if the gaols are resorted to for the temporary care of the acutely maniacal or dangerous, there will be little formality attendant on their admission to the hospitals for the insane, and stringent provisions are made to prevent those who have to be detained in gaol for a few days from coming in contact with the criminal classes.

Another government measure provides that municipalities will contribute a proportion of their share of the railway tax toward the maintenance of the indigent insane in public hospitals. This is a very wise provision, as it throws a responsibility on the municipality which it was never before called on to assume. The result will be that the worst features of the warrant system will be attacked in a vital spot.

During the session, too, it was announced that the question of the removal of the Toronto Asylum from its present unsuitable location was taking practical shape. This means that Ontario will then be able to put up a hospital that will be a credit to a progressive Province. Being situated within easy reach of the Provincial University, it should include a psychiatric clinic and laboratories of the most approved type, where much-needed investigation and research may be done. It is a matter of regret among Canadian physicians that the various governments have paid so little attention to the demands of the scientific side of mental diseases. At present there is little incentive to young men to study psychiatry, as a specialty, and the prizes in the service are so generally handed over to active politicians that enthusiasm is not often developed among junior officers.

On Thursday, June 13, a ward for the care and treatment of neurasthenics was opened, in connection with the Toronto General Hospital. It is modelled somewhat on the lines of the Albany Hospital ward for the insane, although much more limited in its application to cases of actual insanity. The idea is to treat cases in what may be the early stages of mental alienation, or cases of functional nerve trouble.

There is no provision for the treatment of the acute insane; indeed, the structural requirements for such a class of patients did not exist in the building adapted for the ward for neurotics.

The ward is pleasingly decorated, and in many respects will prove a valuable addition to the resources of the general hospital.

The ward is under the direction of Dr. Campbell Meyers, and Dr. E. C. Burson is in immediate charge. Dr. Meyers is well known in Toronto as a successful neurologist of large experience.

Book Reviews

Bericht des Landesausschusses des Erzherzogtums Oesterreich u. d. Enns über seine Amtswerksamkeit vom 1, Juli, 1903, bis 30, Juni, 1904. V. 1 a Wohlfahrtsangelebenheiten. Referent: LEOPOLD STEINER. (Wien: Auf der k. k. Hof-und Staats druckerei, 1905.)

This is a voluminous report of 707 octavo pages devoted to the hospitals, both general and for insane, homes, etc., of Lower Austria, including Vienna. The book is divided into three parts, the first dealing with general hospitals and the special sanitaria for inebriety and tuberculosis; the second with institutions for the insane and feeble-minded; and the third with the homes for orphans and the blind, and industrial schools.

The book is in paper binding and its appearance is considerably improved by a number of very attractive pictures, especially those showing children at work, at play, having class out of doors, performing physical exercises, etc. Besides these, a number of exteriors and interiors of institutions are shown. In such a mass of statistics as is here presented it is impossible to pick out any facts of general interest, but those who delight in statistics will find pleasure for many an hour. The bulkiness of the work is perhaps not to be wondered at when the number of institutions treated is considered.

W. R. D.

Index Catalogue of the Library of the Surgeon-General's Office, United States Army. Second Series. Vol. XI. Mo-Nystrom. (Washington, 1906.)

This series hardly needs any description, so well known is it. Probably no one who has done any medical writing, but has found the Index of considerable value and convenience. The volume under review does not contain a list of papers upon mental disease or insanity, as it only contains subjects from *mo-* to *nystrom*. Fifty-eight pages are given over to the word nerve and its sub-heads, ninety-eight to the word nervous and its sub-heads, eighteen pages are given over to neuralgia, sixteen to neurasthenia, fourteen to neuritis; while neurofibroma, neurons, etc., also have their show and eight pages are given over to the neuroses and psychoneuroses with cross reference under chorea, hysteria, insanity, phobias, etc. As these pages are large quarto and the type is small, it is easy to understand what a tremendous amount of literature is here indexed. The Government deserves the thanks of all medical men for fostering this work.

W. R. D.

Second Annual Report of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis.

The second report of the Phipps institution is a volume of 452 pages. In the vast amount of information furnished in this it would be somewhat difficult to select that which would be most interesting to readers of the JOURNAL were not special sections devoted to the Neurological Work and Mental Attitude in Tuberculosis, the former covering forty-four pages and the latter ten. The neurological report has been made by Dr. D. J. McCarthy, who has been assisted in his work by Dr. Carncross, who reports directly upon the mental attitude in tuberculosis. Dr. McCarthy, however, takes up the mental attitude in less detail than does Dr. Carncross. Justice could not be done to these reports by as brief an abstract as would have to be made here, but those interested are referred to the original as being most interesting. The institution has for some time been experimenting with Maragliano's serum and with serumtherapy in general. This report has been made by Dr. Ravenel, who studied under Prof. Maragliano and in other parts of Europe. He gives a history of the work preceding that of Maragliano, describes the method of preparation of the serum, and also reviews the work of Marmorek. In another part of the book are reports of three cases which have been treated with Maragliano Serum, two of these having been compared with seven other cases treated without. The conclusion of Dr. Stanton is that "as far as it is possible to judge from so limited an observation, the use of Maragliano serum is not indicated in cases of moderate or advanced degree." His other conclusions deal more with details. The single case reported by Dr. Landis is reported principally because of the "untoward effects" caused by each injection. The report is a most interesting one.

W. R. D.

Department of Neurology, Harvard Medical School. Contributions from the Massachusetts General Hospital, The Boston City Hospital, The Long Island Hospital, and the Neurological Laboratory. Vol. 1. (Boston, 1906.)

The staff of the Neurological Department of Harvard University, consisting of Drs. Jas. J. Putnam, G. L. Walton, Philip C. Knapp, E. W. Taylor, and E. W. Waterman, have collected the papers, numbering twelve, which have been published by them during the past three years and with them have made an attractive volume. Unlike a number of collections of this character there is a uniformity in the size of the pages, type, etc., which makes the book most attractive. In addition to this the wide margins add much to the appearance of the pages, and the tasteful gray covering makes it a most dignified volume. With the names of the authors it is hardly necessary to state that the papers are most interesting and well done. All but one of the papers have been published in the Boston Medical and Surgical Journal. The preface informs us that it is the intention of the Neurological Department to hereafter publish approximately once

yearly its work in this form in order that it may be conveniently preserved.

Of the value of the publication to those interested in neurology it is unnecessary to speak, and an addition to the volume, which it is intended to print in each volume that hereafter appears, is the appendix giving a complete bibliography of each of the different men. It is not stated how this work may be procured, but probably a letter to any one connected with the Neurological Department would elicit this information.

W. R. D.

Philadelphia Hospital Reports. Vol. VI. 1905. Edited by HERMAN B. ALLYN. (Philadelphia: Printed by Bradley Printing Company, 1905.)

This volume contains a number of papers on neurological subjects and two of special psychiatric interest, viz.: The Delirium noticed in Cardiac Disease, by Roland G. Curtin; and Three Cases of Mental Disorder associated with Multiple Neuritis (Korsakoff's Disease). Reported by S. A. Carpenter. Besides these there are a number of papers upon medical and surgical subjects. The first paper, entitled "An Account of the First Clinical Reports," issued from the Philadelphia Hospital, by H. M. Landis, is of considerable historical interest, and in closing Dr. Landis says: "From this brief account of the prevailing conditions seventy-five years ago it will be seen how closely the habits and traditions of the hospital have clung to it. There is no apparent change in the class of patients; no decrease in the wealth of clinical material; the mortality rate remains high; clinic days are the same, and habits, meriting 'severe reprehension,' still continues." It seems superfluous to speak of the high quality of these papers, as the list of authors includes such men as Roland G. Curtin, Chas. K. Mills, F. X. Dercum, Alfred Gordon, G. E. de Schweinitz, Wm. E. Hughes, Robert N. Willson, Orville Horwitz, and many others equally well known.

The volume proper contains 276 pages, but the inclusion of 13 papers, reprinted from other publications, adds considerably to the size. Unfortunately, these latter are separately paged and are not indexed. In mechanical details, however, they are superior to the body of the book, which is poorly printed. The whole is neatly bound in cloth.

W. R. D.

Manual of Psychiatry. By J. ROGUES DE FURSAC, M. D. Translated by A. J. ROSANOFF, M. D. (New York: John Wiley & Sons, 1905.)

A small text-book on Mental Diseases is a dangerous thing. Brevity tends to dogmatism, asserted or suggested, and of all sciences psychiatry is the one in which dogmatism is most out of place. The 350-page manual of de Fursac, now in the second French edition, does not altogether escape this danger; it is, however, a serviceable handbook. The author is a close disciple of Kræpelin, and thus adds his influence in spreading the Heidelberg doctrines in France. In treatment the book follows the plan

of most modern text-books, introducing the subject of the individual psychoses by a section on general symptomatology containing an abundance of concise descriptions and definitions, including numerous quotations from various authorities. In this part the views of French alienists are given full credit, and the book is particularly interesting as a fairly unbiased French presentation, with French symptomatology and nomenclature, of a system of psychiatry, in its larger outlines essentially German.

The translation seems to be satisfactory, and the book, either in English or the later French edition, can be recommended.

FARRAR.

Thirty-Fourth Annual Report of the Board of Commissioners of Public Charities of the Commonwealth of Pennsylvania for 1903.

From this report we learn that there are in Pennsylvania 71 prisons, 70 almshouses, 15 institutions, 11 State hospitals for the insane, 7 State hospitals, 105 general hospitals, and 157 homes. These are all under the supervision of the Board, of which there is a distinct, and to some degree, independent Committee on Lunacy, with its own chairman and secretary or executive officer. The report of this committee covers 115 pages. Three hundred and twenty-five pages are devoted to the report on general hospitals, almshouses, and other institutions. On September 30, 1903, there were 12,732 insane persons under care, of whom 1030 were private patients. In the two years preceding publication of the report the average increase in number of the insane has been 49.2 per annum. In order to care for this annual increase it is proposed to build relatively small buildings on the grounds of existing institutions, practically the adoption of the cottage or colony plan. This has been done to a limited degree at Warren and has been satisfactory. The statistical tables cover 69 pages, and the majority are intelligible, but a number are of such form as to be rather confusing to the seeker for detailed information. The report on a whole is a satisfactory one.

W. R. D.

Abstracts and Extracts

The Sphincter Reflexes in Tabes Dorsalis and Paresis. By COLLIER F. MARTIN. Journal of Nervous and Mental Diseases, Vol. 33, p. 527, August, 1906.

The author's investigations as to the condition of the sphincter reflexes in cases of certain of the organic nervous diseases particularly tabes and tabo-paresis have been carried out for some years past, and he states that the idea of making these studies presented itself when, in examining the rectum in cases of tabes, he found that when the finger had been introduced into the rectum and firm lateral pressure made, relaxation would result, and it was not necessary to resort to the use of a speculum.

In a series of 28 paretics the loss of muscle tone was found in 24. In one case the contraction was normal, and in three cases the condition of the muscle was doubtful. In nine purely mental cases the reflexes were normal. Eight cases of tabes dorsalis gave positive evidence of lessened myotatic irritability.

In some of the cases of tabes the relaxation of the external sphincter was quite noticeable, although the disease was in an early stage. The author believes the absence of normal contraction to be due to a lessened myotatic irritability associated with a sensory paralysis, involving the skin margin of the anus and rectal mucosa. In four of the cases of tabes, rectal crises were also present.

The internal sphincter in these cases shows considerable power, but without the associated contraction of the external sphincter when the finger is introduced into the rectum. The rhythmic character of the contraction of the normal sphincters is absent, the author finds. It is also noted that if the anus is dilated, the sphincter remains relaxed for some time; this may be due to a loss of muscle sense. In cases where there is a deficient development of the sphincter, a condition somewhat similar to sphincter paralysis is present, but is to be differentiated by the presence of the rhythmic contractions above referred to. In many of these cases of lessened sphincteric tone the anus is funnel shaped, and there may be a prolapse of rectal mucosa.

In the author's experience, extreme spasm of the sphincter is absent in tabes, although tenesmus may be present during the attacks of rectal pain. Obstinate constipation and a sense of rectal discomfort suggesting a desire for stool are often present. In cases where this condition of sphincter paralysis is present, the patients soil themselves almost constantly. In tabes the symptom of sphincter paralysis develops early, according to the author, and this, of course, is of considerable import, and should be of value to the neurologist.

The author then briefly sums up that, in certain cases, principally in tabes and in paresis, there is interference with the sensory distribution to the nerves supplying the sphincters characterized by loss of muscle tone, partial or complete incontinence due to relaxed musculature and loss of sensation of the rectal mucosa and contiguous structure, the patient being unaware that his bowel should be evacuated. These symptoms and the presence of severe pain in the rectum, where there is no lesion to account for it, are at least suggestive of an early tabes or paresis, although they may be found more rarely in other nervous conditions.

FITZGERALD.

Calcio e magnesio delle urine nei dementi precoci. Ricerche del ANTONIO D'ORMEA. Giornale di Psichiatria Clinica e Tecnica Manicomiale, Anno XXXIV, p. 28, 1906.

This research is a continuation of the investigation which the author had previously conducted with Dr. Maggiotto (see this JOURNAL, Vol. LXI, p. 555, and Vol. LXII, p. 533).

After referring to the above research the author states that he concluded that it would be of interest to observe the proportional diminution between the alkaline phosphates (sodium and potassium), and earthy phosphates (calcium and magnesium), and for this purpose has carried out the present investigation, which he believes has an important physiological value as well in the normal individual as in the diseased. He then briefly refers to the literature of the subject, describes his method of investigation and the tests employed, and gives the results obtained in the same careful manner which distinguishes his past work. Two men and two women in each of the three forms of dementia præcox (hebephrenic, catatonic, and paranoid) were the subjects, normals having been established from four nurses, two men and two women.

D'Ormea finds that in dementia præcox the elimination of calcium and magnesium is slightly diminished, and more of magnesium than of calcium; that the diminution of calcium and of magnesium, but of calcium especially, is more marked in women than in men; that in regard to the three forms, the diminution both of calcium and magnesium is more marked in the catatonic, less marked in the hebephrenic, and still less in the paranoid; and finally, that in dementia præcox the greatest diminution of the phosphates eliminated in the urine is of the alkaline phosphates and only in a small degree of the earthy phosphates.

W. R. D.

Ricerche sfigmo-manometrische in alcune forme psicopatiche. Dei PIETRO CONDULMER E GUISSEPPE BORDON. Giornale di Psichiatria Clinica e Technica Manicomiale, Anno XXXIV, p. 61, 1906.

The authors have observed the blood-pressure in 223 cases of epilepsy, melancholia, mania, circular insanity, delusional insanity, dementia, paresis, pseudo-paresis, both alcoholic and syphilitic, pellagra, and congenital con-

ditions, the results being given in tabular form as well as in the text. Frequent references are made to the results of other investigators, with which Condulmer and Bordon agree in most instances. The impression is given that the work would have been more valuable had more frequent observations been made in each case, only one or two being recorded in the majority of cases.

Studio Clinico statistico sui morti per paralisi generale progressiva nel R. Manicomio di Torino nel decinnio 1894-1903. Dei GUISEPPE MARGARIA. Annali di Freniatria, Vol. XVI, p. 177, Giugno, 1906.

The author has made a statistical study of the cases of paresis treated at the Royal Asylum at Turin during ten years, and from this study derives the following conclusions:

1. The age of incidence of paresis varies from 20 to 70 and more years. The greatest number occur in the period between 41 and 45 years (20.8 per cent) and in wider limits, 35 to 50 years (56.7 per cent).

2. Paresis occurs in greater frequency in man than in woman, the ratio being 1 to 3.6.

3. The social condition influences the etiology of the disease a little. It was found that it occurred more frequently in dwellers of cities than in those of the country. Of the former 83.8 per cent and of the latter 16.2 per cent.

4. Heredity as a single cause was found in 2.97 per cent, and associated with other causes in 30 per cent.

5. Alcoholism was the single cause in 27.87 per cent, with syphilis next in 11.40 per cent; while these two causes together in 8.37 per cent hold the third place.

6. The duration of paresis, independent of sex, age of development, and of cause, varies between wide limits, up to 10 years. The greater number die in from one to two years.

7. The most frequent cause of death is marasmus (38.81 per cent); 48.18 per cent die from chronic affections directly due to the paresis; 18.41 per cent from ictus and 13.5 per cent from acute affections not connected with the general disease.

8. The age and the cause of the disease has little or no influence on the cause of death.

W. R. D.

The Mental Disorders of Pregnancy and the Puerperal Period. By NATHAN RAW. Edinburgh Medical Journal, Vol. XX, p. 118, August, 1906.

This article, the author states at the outset, is based on his observations of 102 cases of mental troubles coming on during the period of pregnancy or in the puerperium. His cases were first seen in his own wards of a general hospital, but the lunacy law only allows the detention of the patient for a short period (the exact time being three weeks), on the

expiration of which time the patients were transferred to the County Asylums. For this reason the writer is unable to state how many cases were discharged recovered, but of the 102 cases, 24 cases in the three weeks had so far recovered that it was unnecessary to have them committed, the treatment being continued and concluded in a general hospital.

The author gives a short table showing the yearly admissions—those transferred to asylums—those cured and those who died. There were eight deaths from exhaustion due either to severe maniacal excitement or from the inanition accompanying the profound depression. At autopsy in four of these cases nothing could be found to account for such marked mental disturbance.

The author's first clinical observation was the large number in whom albuminuria was present, 62 per cent, the persistence of this symptom being variable. The author mentions that Sir James Simpson made this observation as far back as 1857, and that very little further knowledge into the nature of the condition has been gained.

Of the author's cases, 71 showed excitement and 31 depression, and he adds further, that those showing excitement, although their symptoms were more acute, made quicker recoveries.

The rarity of the development of a psychosis during pregnancy is next touched on. Only six out of the author's 102 cases developed at this time: they occurred between the third and seventh months. That there is a "psychological sensitiveness" in these cases that in all probability predisposes to a mental disturbance the author believes to be true and supports this by mentioning various affect anomalies present in women at this time, such as irritability, undue instability, etc., and occasionally perversion of the special senses.

That illegitimacy is a factor in the causation of these cases, the writer has not been able to prove. Clouston's view that abortion may be induced before the fourth month in cases where a psychosis develops early in pregnancy is mentioned, but the author has never had to resort to it.

Therapeutic measures suggested in these cases are, stimulating diet, special attention to the renal functions with a view to obviating albuminuria, careful nursing, and constant supervision.

The prognosis in most cases is favorable and there is an early recovery, although eight per cent of cases die and the likelihood of a fatal termination is greater than in any of the other acute psychoses.

The question of having to certify these patients naturally arises, and the author thinks it unfortunate that a woman who is suffering only from temporary alienation should have to be sent to an asylum and have to endure the social stigma that this entails. He therefore advocates the establishment of reception hospitals for acute cases, where the patient could remain for a reasonable period without being declared a lunatic, but later be removed to an asylum, if necessary.

FITZGERALD.

The Significance of Jacksonian Epilepsy in Focal Diagnosis with Some Discussion of the Site and Nature of the Lesions and Disorders Causing this Form of Spasm. By CHARLES K. MILLS. Boston Medical and Surgical Journal, Vol. CLIV, p. 453, April 26, 1906.

In this article the author first states that he uses the term broadly, meaning a mono- or hemi-spasm due to cortical or subcortical discharge presenting usually an initial symptom and a serial order of phenomena. Just here it is noted that although in many cases there is irritation or instability of motor areas of the cortex cerebri in cases of Jacksonian spasm, it is not true that there is always a gross lesion present.

That hemi-epilepsy is not always similar in character to a Jacksonian seizure should be remembered: first, because a hemi-epilepsy following hemiplegia may begin on the paralyzed side but later become general, and in children or in older individuals where there has been softening from thrombosis and subsequent destruction of tissue about the lesion, the focus which has undergone necrosis may be surrounded by greatly engorged vessels, and there may be also punctiform hæmorrhages—these being sufficient to set up convulsive seizures, perhaps at first unilateral. In such cases, of course, the mechanism is the same as in Jacksonian epilepsy, but in certain cases of hemi-epilepsy the irritative lesion may be distant from the cortex or due to a toxic state.

The author then notes that Jacksonian seizures have often had decided value in aiding the surgeon to localize the seat of the lesion in cases of cerebral tumor. Case histories are cited in which this was true and where an operation was done. All cases were due to neoplasms except one, which was caused by a localized pachmeningitis and gumma of the cortex. The other evidences of gross lesion in addition to spasm were monoplegia or hemi-paresis with exaggerated reflexes on the side in which the spasm occurred. Jacksonian epilepsy being of so much local diagnostic importance it is well to keep in mind the seat and nature of various lesions producing the condition. (1) They may be due to tumors situated in other parts of the brain than the motor cortex. (2) They may be due to lesions other than tumors situated in the motor cortex. (3) They may be due to a toxic condition and in certain conditions where no focal lesion can be demonstrated. (4) A spasm simulating the Jacksonian seizure may be observed as a reflex or hysterical disorder, and lastly, a Jacksonian fit may be an integral part of the entire expression of a case of so-called idiopathic epilepsy.

Jacksonian epilepsy from the first cause would only be possible where the causation due to the presence of a neoplasm would be of sufficient intensity to spread to the motor area—such cases are rare, and of course should not be confounded with cases in which the spasm is a symptom clearly indicating that a neoplasm has entered the motor zone where psychic speech and graphic disorders had much earlier been noted. In the author's experience tumors growing backwards from the frontal region are much more likely to cause spasm than those arising in the

parietal region and advancing toward the motor area, and it is suggested that possibly the destruction, first of sensory cortex and sub-cortex before evolvement of motor cortex or projection fibers may give immunity from such spasm.

An interesting case reported by Weisenberg is mentioned, where the tumor sprang from the eighth nerve, causing one-sided deafness, tinnitus, facial monospasm, hypesthesia of one side of the face, nystagmoid movements, slight paresis of the right abducens, vasomotor and cardiac disturbances, severe headache, nausea, vomiting, and optic neuritis. In this case the spasm was always one-sided. Another case is recorded where the tumor was situated in the cerebello-pontine angle, causing considerable difficulty in focal diagnosis, where a most successful result followed operation.

Tumors of the cerebellum and pons have also caused Jacksonian seizures.

That a spasm may be due to irritation of the dura from the presence of a tumor anywhere within the cranial cavity, must not be forgotten. This has been proven by clinical and pathologic observations, also physiologically. A point of distinction between cortical Jacksonian spasm and the convulsive seizure, due to irritation of the dura, is that the spasm will begin on the side of the irritation and rapidly spread to both sides, but the observation that the spasm is at first unilateral may not be made if the individual is not seen early in the attack. Cases in which tumors arise from adherent dura and pia in the motor area often give rise to confusing pictures of more or less generalized convulsions. Other lesions than tumors that may give rise to Jacksonian spasm are not considered, and just here it is to be remembered that even when one has to deal with a neoplasm, intense headache and optic neuritis may be absent, and nausea and vomiting not conspicuous symptoms. Depressed fractures, localized meningitis, meningeal or cortical hæmorrhage, focal hæmorrhagic encephalitis, and focal necrosis occurring from embolism or thrombosis (including cases associated with general arterio-sclerosis) may all cause seizures closely similating those produced by a tumor growth. In the case of fracture it could only happen with an old depressed fracture of the inner table of which only after a considerable time resulted in the development of Jacksonian attacks. Here operative interference would, of course, be of benefit.

Localized meningitis perhaps association with gummatous inflammation of syphilitic origin, may be benefited by anti-luetic treatment, but operative interference may also be demanded.

Jacksonian spasm due to supra- or sub-dural hæmorrhage can usually be recognized by characteristic phenomena of dural hæmorrhage such as contralateral paralysis, dilated pupil on the side of the lesion, and changes in pulse, temperature, and respiration. Superficial cortical hæmorrhage, such as one finds in cases of sinus and venous thrombosis, may cause trouble if a clear history of acute or subacute onset is not obtainable. A

rare cortical condition, focal hæmorrhagic encephalitis, may in its early stages be confused with a tumor of the motor region causing Jacksonian seizures. Arterio-sclerosis is a form of focal cortical disease that must ever be kept in mind when one considers using operative interference for the relief of symptoms like those present when a neoplasm is developing in the motor area, particularly in cases where Jacksonian epilepsy is present. The cardinal points of differentiation are that in arterio-sclerotic conditions there are present the cardiac and renal changes, gradual cerebral failure, progressive loss of power on one side, and impairment or loss of different forms of sensibility, perhaps with some agraphic or aphasic disturbance, the seizures are usually slowly and irregularly developed, being fully developed late, and coming with one-sided paresis or paralysis, the history of the development of the seizures, the presence of renal, cardiac, and general arterial changes, and the absence of general symptoms of brain tumor will aid in the diagnosis. Of course, arterio-sclerosis and brain tumor may occur together, and this must not be overlooked. That operative interference has been decided on and carried out in cases where all the symptoms could have been accounted for by changes due to an arterio-sclerotic condition, is noted, although in neither case recorded was true Jacksonian epilepsy present.

In another group of cases a tumor may be present where there are also vascular lesions in other locations than that of the tumor. In such cases if there is a focus of necrosis false localizing signs may be present, which may give rise to considerable difficulty.

That hemi-epilepsy or Jacksonian seizures of smaller range may occur in toxic or diathetic conditions, such as diabetes, Bright's, uræmia, occasionally in Korsakoff's syndrome, or as an acute alcoholic manifestation, in fact, in any form of toxic or infectious disease, of course, the diagnosis from cerebral tumors in the motor area is usually not difficult.

The dural epilepsies mentioned above are reflex, the tumor irritating the dura stimulates sensory branches of the fifth nerve, setting up very severe convulsive attacks. Rarely a peripheral irritation may cause a Jacksonian seizure; in such cases it is probable that there is an unusual instability of the motor cortex, either inherited or acquired. Hystero-epilepsy is to be differentiated by the presence of stigmata.

Cases of idopathic epilepsy where the only manifestation is a Jacksonian seizure are, of course, extremely difficult to diagnose, and such cases are recorded.

It is the opinion of the author that Hughlings Jackson's observation that almost every case of idiopathic epilepsy, if studied carefully enough, will be found to have had local spasm as the irritating phenomenon of the general attack, can usually be verified, and he quotes several cases supporting this opinion.

Two cases are next recorded where an osteoplastic operation was done, but no tumor growth could be seen, and it is thought that in the first of these the condition was idiopathic epilepsy, closely resembling brain tumor

with signs of Jacksonian epilepsy, and in the second the possibility of the presence of a small sub-cortical neoplasm which will later enlarge and reach the surface. In another case, recorded by Spiller and Martin, where at operation no distinct growth could be made out, at autopsy a small sarcoma was found in the right second frontal convolution just in front of the precentral convolution immediately beneath the cortex.

Certain points in the differential diagnosis of Jacksonian epilepsy as brought out by Plavec in an article referred to by the author, where the observations of Binswanger and Fere are reviewed. Fere's conclusion that cases of so-called tic are often in reality of epileptic nature, is of interest.

The aura in idiopathic epilepsy is not as common as that occurring in organic epilepsy or in epilepsies due to reflex causes. Idiopathic epilepsy is liable to occur at night, true tics and hysterial epilepsy scarcely ever at night, although severe cases of the former occurring at night have been recorded. Reflex and true Jacksonian epilepsy may occur at night, but not as often as idiopathic epilepsy. Fere also noticed that in Jacksonian epilepsy at night the attack wakened the patient, but in idiopathic epilepsy he was only awakened by such an attack as would not cause him to lose consciousness in the daytime. In minor epilepsy there is more or less paralysis of the part after an attack; most frequently this is true in organic or cortical epilepsy, but it has also been observed after a reflex or idiopathic attack. The paresis may be lost only a short time and may be overlooked, a transitory weakness or sensory disturbances may occasionally take the place of the epileptic convulsive seizure occurring without loss of consciousness. FITZGERALD.

Some Truths about Sleep. By NORMAN BRIDGE. Journal of the American Medical Association, Vol. XLVII, p. 652, Sept. 9, 1906.

The author first notes the variability in amount of sleep necessary for different individuals and states that men are apt "to measure others by the yardstick that fits themselves."

The author then goes on to say that many people who are troubled with insomnia believe this to be the cause of all the discomforts which they endure, whereas it is often only a symptom of some underlying condition. The mental attitude of the patient who is troubled with insomnia is often most unfavorable to his getting sleep at all readily. He anticipates a sleepless night, and this thought being the focus of attention, tends to aggravate the complaint. The author sums up by saying that the horrors of insomnia are slightly due to want of sleep, but very much due to insomniaphobia.

That we are too apt to forget that rest for the body is quite as necessary as rest for the brain, and that if we do rest for eight hours out of every twenty-four, it isn't at all necessary that we should sleep all of this time, is the next observation. The cultivation of a proper mental attitude for sleep is then dwelt upon, and the author states that it is a fact

of interest that the great men of history have slept little. After quoting one case which the writer had under observation, that of a child who was able to do with very much less sleep than is generally supposed to be necessary for children, he states that this is quite sufficient to disprove that "all children must sleep a great deal or be ruined." That a man should necessarily go at once to sleep on retiring is an incorrect view to take, according to the author, and this view is apt to be one of the reasons why an individual cannot sleep because it tends to produce a mental state in which it is difficult to drop off to sleep.

Light and noises, the author says, are often sources of annoyance that act as sleep destroyers, and are often particularly pernicious because of the amount of attention paid to them by the individual who is endeavoring to sleep. Other causes of insomnia, such as various gastro-intestinal disturbances are mentioned.

The author concludes by saying that "sleep comes normally with a normal and unabused body that has been fatigued a little and then been put to rest, and it is helped by cessation of active thinking, by darkness, by stillness, by mental tranquility, and a happy spirit—these are primary, the sleep is secondary." FITZGERALD.

Des phobies. Par DR. TERRIEN. Progres Medical, An. 35, p. 497, 11 Aout, 1906.

The author acknowledges that he has taken a subject of which much might be written, but limits himself to the study of certain forms. His definition of a phobia may be briefly stated as an obsessing, painful fear. A number of varieties of phobias are enumerated. Phobias are usually met with in degenerates and are considered important psychic stigmata. They are also met with in hysterics and differ essentially as occurring usually more abruptly than in degenerates. A favorable soil must exist for their development, but infections, intoxications or autointoxications may aid in their development. A particular circumstance such as an injury or a moral shock may be an exciting cause. The prognosis of phobias is as a rule unfavorable, though there may be a diminution in their severity or even a disappearance. The author then gives abstracts of twelve cases, six in hysterics, and concludes that despite the opinions of other observers there is a phobia due to hysteria and urges as proof the possibility of their being induced and effaced by suggestion. They differ from the phobias of degenerates in that the latter develop more slowly, frequently being unsuspected, are progressive, and nearly always are not influenced by treatment. W. R. D.

Troubles mentaux dans la sclérose latérale amyotrophique. A. CULLERRE. Archives de Neurologie, Vol. XXI, p. 433, Juin, 1906.

After referring to the work of P. Marie, Raymond and Cestan, and Ballet, the author gives histories of six cases which have been under his care, and comments upon each. In all the organic psychopathies the symp-

toms observed should be divided into two groups; first, those of dementia, due to the involvement of the cortex by the sclerotic process; and second, symptoms which are merely an exaggeration of the patient's predisposition. In the cases studied it was seen that amyotrophic lateral sclerosis was accompanied by mental symptoms which were of varying severity, from a slight dementia to that as complete as is observed in a paretic; and from a simple psychasthenia to suicidal melancholia and systematized delusional insanity. As in other organic psychopathies it may be seen that the dementia of amyotrophic lateral sclerosis is due to the organic lesion, and the delusional symptoms are due to predisposition of the patient. It is noted that in the two patients who showed the most severe symptoms that there was a history of insanity in the antecedents.

W. R. D.

The Evolution of Insanity. By ROBERT JONES. From advance sheets of Journal of Mental Science, Oct., 1906.

In this, his presidential address, delivered at the sixty-fifth anniversary of the Medico-Psychological Association of Great Britain and Ireland, Dr. Jones touches upon many subjects connected with insanity. After a few general remarks he defines his title "more exactly as the evolution of our conception of insanity, both as regards the special forms of mental disorder and, so far as accessible records permit, of the evolution also of their general treatment."

"During this evolution the restraints, penalties, and disabilities formerly so inconsiderately applied to the patient have become shifted to his physician, who is now himself threatened with penal clauses and surrounded with restrictions."

Dr. Jones takes up briefly the history of insanity as known to the ancients, and gradually leads up to the methods of treatment known in Great Britain from the twelfth to the seventeenth centuries. For two centuries preceding 1815 the condition of the insane was deplorable, as they were treated as criminals and subjected to cruelty. At this date the Parliamentary investigation brought about a reform in their treatment. After giving a number of statistics and mentioning more recent legislation for the insane, a discussion as to the causes of insanity is entered upon, and arguments are made to disprove a number of statements made in the *Times* that asylum physicians do, and have done, nothing for the cure of cases committed to their care.

"Do we know the conditions underlying the nature of delirium as it accompanies pneumonia, hyper-pyrexia, hyperœmia, and the specific fevers? If the explanation of some of these conditions, which form part of the domain of general medicine, is at present undiscovered, I hardly think the failure to discover their essential cause lies at our door. As has been stated by a former President, 'the advance of science in any system of investigation is to be measured less by the amount of result than by the general intention.' I do not say that we ourselves are satisfied with our

present results; on the contrary, we desire to attain further improvement, but we are doing our best in the light of our present knowledge. It is not fair to compare us with general hospitals and to state that in asylums we only treat symptoms, although in insanity the symptom often transcends in importance the underlying physical abnormality, and when a patient is soothed by remedies fitted to allay the irritability of a diseased brain that remedy is properly administered, and who will venture to say that this treatment of symptoms is empiric or wrong?

"The physician who neglects to treat symptoms may be shunning a responsibility which we, as physicians in asylums, are bound to undertake for our patient, who is not responsible for his own acts. We have to see that food is taken when delusions forbid and command otherwise; we have to see that patients are properly clothed who prefer nudity, and that they take exercise when disinclination and resistiveness are extreme, as those of us who are continuously familiar with insanity apprehend. It is difficult, if not impossible, to contrast asylums with general hospitals, and most emphatically is this so as to "cures." The term itself is not easy of definition, and of 38,838 in-patients admitted during the year 1905 to the general hospitals of London—including those associated with medical schools—we find by reference to the *Lancet,* June 9th, 1906, that only 12,571 are stated to have been "cured," a proportion of only 30.2 per cent of the admissions, whilst a proportion of 8.7 per cent have died. What has become of the other 61.1 per cent? These have been sent home, or to some such destination if they possess relatives or friends; if not, then, to the Poor-Law infirmaries or other shelters. At any rate they are not permitted to remain in the hospitals, whereas we are compelled to keep our incurables, who remain in our asylums and therein accumulate."

It is pointed out with regret that the recovery rate in cases of insanity has fallen, but it is also shown that a number of the unfavorable forms of insanity are on the increase, these are paresis, pre-senile insanity and dementia præcox, of which formerly little was known.

A number of references are then made to older writers as illustrating the causes attributed to mental diseases during the eighteenth century, and the statement is made that "Pargeter, in 1792, * * * referred at considerable length to the disturbed emotions as being a cause of insanity, and he named four volumes which he considered had a most unfavorable influence in causing a mental breakdown, viz., Wesley's Journal, Watts' Hymns, Pilgrim's Progress, and the Fiery Furnace of Affliction. It is especially noteworthy that he describes those who marry, having an hereditary history of insanity, as enemies of their country."

The subject of heredity is then touched upon, Dr. Jones feeling "that in eugenics are to be found the chief remedies for the amelioration of social pathology, but how these are to be applied is a matter of detail." "If only the evils of alcohol and venereal disease were disposed of, then half the problem of insanity would disappear with them. We have devoted workers who use every effort by educational, reforming, and training methods

to effect this improvement [in defectives], but hitherto only the outskirts of this problem have been touched."

The establishment of out-patient departments and of "reception houses" where instruction may be given to medical students is advocated. The work which the Medico-Psychological Association has done for the improvement of the insane is referred to at some length, and it is finally proposed "that an annual lectureship be endowed by our prosperous association, dealing with insanity in its sociological aspect; for the more we work into these side issues the more we feel that the life of intellect of emotion, of action, of thought, and even of pleasure, have effects which command our earnest attention. The whole question of insanity demonstrates what a great thing life is, and that there is no aspect of it unworthy of study or destitute of interest." W. R. D.

The Distribution of Afferent Nerves in the Skin. By PROF. MAX VON FREY. Journal of the American Medical Association, Vol. XLVII, p. 645, Sept. 9, 1906.

This paper was read before the section on pathology and physiology at the fifty-seventh annual session of the American Medical Association, June, 1906.

In his opening remarks the author speaks of Sherrington's researches which have been mainly instrumental in clearing up the question as to the exact rôle of the ventral roots in supplying nerve filaments to the muscles. Sherrington also, by experiment made on monkeys, determined the exact extent of the cutaneous areas of the dorsal roots of all the spinal nerves. Sherrington found that the areas were continuous for each single root and that they overlap to a considerable extent. Owing to the fact that Sherrington's work was largely done on animals, his results were of necessity limited, and he himself awaits further information from careful clinical studies.

The author states that the sensory functions of the skin are based on four fundamental qualities mediating the sensations of warmth, cold, touch and pain. Investigations have proved that the cutaneous nerve supply must therefore be a fourfold one. The work of Blix and Goldscheider, which went to prove the presence in the skin of terminal organs of specific function, is next spoken of. When these touch spots are localized it can be proven that they react in a specific way to various stimuli. As an example—if the head of a pin is used as an electrode, the touch spots respond to an alternating current of minimal strength by a vibrating sensation, in the spaces between the touch spots the same current is felt as a non-vibrating, permanently painful prick. The explanation of this fact is that the sensation produced depends upon the kind of terminal organ excited, one reacts quickly and each alteration of the current is recognized, the other reacts slowly and the alterations cause only a constant irritation. The difference in reaction may be seated in the terminal organs, in the nerve fibers, or in the central parts, or in all three of them.

The impulses, according to the author, must be transmitted to the brain by different paths. In examining temperature sensation it has been ascertained that there are also cold spots and warm spots—they are minute, constant areas where minimal stimuli arouse the sensation of heat and cold when the same stimuli would not arouse such sensation in the intermediate spaces. When thermal irritants are applied, as a rule only one kind responds. It is impossible to give temperature limits so that one could say just when the cold spots or warm spots would be stimulated. Some stimuli act upon both the warm and the cold spots. Mechanical, electrical, and at times thermal, stimuli do so. With temperatures between 45° and 50° C. one is generally sure to stimulate the cold spots as well as the warm. The author has termed this the paradoxical cold sensation. A simple experiment is here given which illustrates the specific nature of the cutaneous, afferent nerve fibers: "By means of a small lens the sunlight is concentrated on a part of the skin where the warm and cold spots have been determined beforehand. By bringing the focus to a warm spot the sensation of warmth is produced; on a cold spot the sensation of cold. In the intermediate spaces the concentrated light is either felt as painful or is not felt at all, according to its intensity. The touch spots never respond, being not accessible to any kind of thermal stimulus."

The author believes then, that the cutaneous nerve supply is a fourfold one, and it has been estimated that there are on the skin of the trunk and limbs about 30,000 warm spots, 250,000 cold spots, and 500,000 touch spots. It has been found difficult to estimate the number of spots where pain is felt with maximal intensity. The objection has been raised that a warm, a cold, a blunt or a sharp instrument passed over the skin is everywhere recognized in its proper qualities, and that the sensation seems a continuous one throughout. The author explains this by saying that all sensory organs possess what he terms the "irradiation of stimuli." There are two kinds of irradiation, a physical and a physiologic. Physical irradiation consists in the spreading of the irritation over a larger number of terminal organs than the nature of the stimulus itself would seem to demand. This spreading is caused by certain physical qualities of the tissue or part conducting the stimulus to the terminal organ. And it has been found that unless special precautions are taken thermal and mechanical stimuli are apt to irritate more than one terminal organ. Physiologic irradiation is demonstrated by showing that when the points of a pair of compasses are set on the skin, these points are not discriminated as separate if the distance (which varies in different parts) is reduced to a certain liminal value. This observation was first made by E. H. Weber. It was found that this liminal distance could be reduced by applying the two stimuli not simultaneously but successively. And the author also determined by this method that two neighboring touch spots could be ascertained, but one could not judge of their relative positions. Simultaneous stimulation facilitates the spread of irritation, and the localization of a given stimulus and the intensity with which it is felt depends

not only on the physical properties of the stimulus and the number and quality of the terminal organs engaged, but also on the conditions existing in the central nervous system.

The observations of Head on the results of nerve injury are next referred to, and they have established the correctness of the view that in speaking of the perception of pressure that distinction must be made between light pressure, or touch, and deep pressure.

In discussing certain parts of Head's work where he endeavors to explain why there are under certain conditions imperfect sensations of heat, cold, and pain, by formulating the view that there is present a certain system of nerves which he calls "protopathic." These nerves regenerate according to Head, more quickly than the "Epicritic" nerves, their sensations are strong, vary little in intensity and their sense of localization is ill developed. The author disagrees with this view. He believes that in regard to the perception of intensity and locality of a stimulus, certain qualities of the central nervous system, such as summation, irradiation, etc., play an important rôle. Further, when a cutaneous nerve is severed the atrophy of its distal end, of its terminal organs, and probably of the skin is not the sole effect, but there occurs at the same time marked changes in the corresponding spinal ganglia and their posterior roots. The experiments of George Kaeter and H. K. Anderson are mentioned as evidence of the changes to be found in the spinal ganglia under such circumstances.

He assumes that as a result of the degenerative processes in the spinal ganglia following nerve injuries the connections of the neurons are loosened and stronger stimuli are needed to awaken sensations than normally, and also that the irritation is almost constant as regards intensity and irradiation, which means that summation and localization are very imperfect. It is known that certain drugs also act in this way. The writer then states that since all the points elicited by Head can be explained "by reference to certain well established physiologic and pharmacologic data," that it seems unnecessary to suggest a hypothesis which is not supported by existing physiologic and psychologic data. The author concludes by stating that his own explanation is more or less hypothetical, but that it is consistent with all recorded observations up to the present time. Finally he believes that physiology must be aided by clinical observation in discovering the functions of the nervous system. FITZGERALD.

Appointments, Resignations, Etc.

BACHELDER, DR. F. S., appointed Assistant Physician Eastern Michigan Asylum, at Pontiac, Mich., October, 1906.

BEEBE, DR. ARTHUR H., Assistant Physician, Illinois Asylum for the Incurable Insane, appointed April 10, 1906. Graduate 1905, University of Illinois, Medical Department.

BRADLEY, DR. ISABEL A., formerly in charge of the Pathological Laboratory of the Columbus State Hospital at Columbus, O., resigned to take up medical work in the wards.

BRUNDAGE, DR. HOWARD, formerly Interne at Columbus State Hospital at Columbus, O., promoted to be Assistant Physician, July 15, 1906.

BRUNK, DR. R. C., First Assistant Physician at Central State Hospital at Petersburg, Va., resigned.

CALHOUN, DR. ARTHUR P., of the Eastern Washington Hospital for the Insane at Medical Lake, Wash., appointed Superintendent of the Western Washington Hospital for the Insane at Fort Steilacoom, Wash.

CAREY, DR. HENRY B., Assistant Physician, Michigan Asylum at Kalamazoo, Mich., resigned August 20, 1906, to accept the chair of Materia Medica and Pharmacology at the University of California.

CLARK, DR. ASA, Superintendent of Stockton State Hospital, Stockton, Cal., resigned to take charge of a private sanitarium in Stockton.

CLARK, DR. FRED. P., appointed Superintendent of Stockton State Hospital at Stockton, Cal.

CONRAD, DR. CHARLES E., Medical Interne at Manhattan State Hospital at Ward's Island, N. Y., resigned May 1, 1906, to accept a position in a general hospital.

CORBUS, DR. JOHN C., formerly Superintendent of Illinois Eastern Hospital for the Insane at Hospital, Ill., resigned.

CRANE, DR. JOHN D., Clinical Assistant at Binghamton State Hospital at Binghamton, N. Y., promoted to be Medical Interne at Manhattan State Hospital at Ward's Island, N. Y., July 7, 1906.

DOLLEAR, DR. ALBERT H., appointed Assistant Physician at Illinois Western Hospital for the Insane at Watertown, Ill.

DUNN, DR. CLARA, Assistant Physician, Illinois Asylum for the Incurable Insane, appointed July 15, 1906, and transferred to the Illinois Northern Hospital for the Insane September 28, 1906.

DUNN, DR. MABEL, Second Assistant Physician at the Nebraska Hospital for the Insane at Lincoln, Neb., resigned July 16, 1906, to enter private practice.

EMERSON, DR. ADELE RUSSELL, of Massachusetts, appointed Assistant Physician at Northern Indiana Hospital for the Insane at Logansport, Ind.

EWING, DR. HALLE L., Assistant Physician at the Hospital for the Insane at Hastings, Neb., appointed Second Assistant Physician at the Nebraska Hospital for the Insane at Lincoln, Neb., Aug. 16, 1906.

FERGUSON, DR. RAY, appointed Superintendent at Territorial Asylum for the Insane at Phœnix, Arizona.

GARVIN, DR. ALBERT H., Medical Interne at Hanhattan State Hospital at Ward's Island, N. Y., promoted to be Junior Physician, April 21, 1906, and resigned June 5, 1906, to accept a position at Ray Brook Hospital for Tuberculosis.

GARVIN, DR. WILLIAM C., JR., Junior Physician at Manhattan State Hospital at Ward's Island, N. Y., resigned July 12, 1906, to enter private practice.

GILLETTE, DR. PHILLIP F., appointed Assistant Physician at Illinois Hospital for the Incurable Insane at Bartonville, Ill.

GREENE, DR. JAS. L., Superintendent of the Nebraska Hospital for the Insane at Lincoln, Neb., resigned on July 16, 1906, to accept an appointment as Superintendent of the Hospital for the Insane at Kankakee, Ill.

HAY, DR. J. T., First Assistant Physician at the Nebraska Hospital for the Insane at Lincoln, Neb., promoted to be Superintendent, July 16, 1906.

HIGGINS, DR. SPENCER L., Junior Physician at Manhattan State Hospital at Ward's Island, N. Y., resigned April 10, 1906, to accept an appointment as Assistant Physician at the Soldiers Home at Bath, N. Y.

HUMMEL, DR. E. M., appointed Assistant Physician at the Insane Asylum of the State of Louisiana, at Jacksonville, La.

JENNINGS, DR. STUART S. M., appointed Third Assistant Physician at the Southern California State Hospital at Patton, Cal.

JOHNS, DR. GEO. A., appointed Assistant Physician at St. Louis Insane Asylum at St. Louis, Mo., Nov. 4, 1905.

LAKE, DR. LAFAYETTE, appointed Medical Interne at Manhattan State Hospital at Ward's Island, N. Y., July 13, 1906.

LETT, DR. EDMUND R., Medical Interne at Manhattan State Hospital at Ward's Island, N. Y., resigned April 1, 1906, to accept a position in a general hospital in New York City.

LUDLUM, DR. SEYMOUR DEW., Assistant Physician at Friend's Asylum at Frankford, Pa., resigned December, 1905.

LYPPS, DR. BERTHA M. L., appointed Assistant Physician Eastern Michigan Asylum at Pontiac, Mich., September, 1906.

MCGEORGE, DR. JAMES M., formerly Assistant Physician at Massillon State Hospital at Massillon, O., resigned.

MEDER, DR. FLORENCE, Third Assistant Physician at the Western Kentucky Hospital for the Insane at Hopkinsville, Ky., accepted a similar position at the Eastern Kentucky Hospital for the Insane at Lexington, Ky., September 1, 1906.

MILLS, DR. GEORGE W., of New York City, appointed Junior Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., April 21, 1906. Transferred September 15, 1906, to the Central Islip State Hospital, Central Islip, Long Island.

MONTGOMERY, DR. J. R., appointed Assistant Physician at Massillon State Hospital at Massillon, O.

MOORE, DR. JOSEPH W., appointed Junior Physician at Manhattan State Hospital at Ward's Island, N. Y., June 5, 1906.

MORSE, DR. MARY ELIZABETH, Assistant Physician, Eastern Michigan Asylum at Pontiac, Mich., resigned, June, 1906, to accept a position as Pathologist to New England Hospital for Women and Children, Boston.

NICHOLSON, DR. FRANK S., formerly Assistant Superintendent of the Norfolk Hospital for the Insane at Norfolk, Neb., resigned July 30, 1906.

O'DAY, DR. SYLVESTER, appointed Junior Physician at Manhattan State Hospital at Ward's Island, N. Y., June 6, 1906, after having completed his service in a general hospital in Brooklyn.

OSBORN, DR. WILLIAM S., formerly Assistant Physician at State Inebriate Hospital at Knoxville, Iowa, promoted to be Superintendent.

PARISH, DR. REBECCA, Assistant Physician at Northern Indiana Hospital for the Insane at Logansport, Ind., resigned to establish a general hospital for the Methodist Missions at Manila, P. I.

PATTERSON, DR. CHRISTOPHER J., Assistant Physician at Manhattan State Hospital at Ward's Island, N. Y., resigned May 11, 1906, to accept a position at Falkirk at Central Valley, N. Y.

PHILLIPS, DR. ARTHUR M., promoted to be Assistant Physician at Manhattan State Hospital at Ward's Island, N. Y., May 12, 1906.

PETTIT, DR. JOHN G., appointed Assistant Physician at the West Virginia Hospital for the Insane at Weston, W. Va.

PILGRIM, DR. CHARLES H., Superintendent of Hudson River State Hospital at Poughkeepsie, N. Y., appointed President of the State Commission of Lunacy.

PILSBURY, DR. L. B., of Lincoln, Neb., appointed Pathologist at the Nebraska Hospital for the Insane at Lincoln, Neb., July 12, 1906.

PODSTATA, DR. VACLAV H., Superintendent of Cook County Institutions at Dunning, Ill., resigned and appointed Superintendent at Illinois Northern Hospital for the Insane at Elgin, Ill., July 1, 1906.

RICHARDS, DR. JOHN S., appointed Medical Interne at Manhattan State Hospital at Ward's Island, N. Y., June 21, 1906.

RICHARDSON, DR. WM. H., appointed Assistant Physician at St. Louis Insane Asylum at St. Louis, Mo., October 14, 1905.

RICHARDSON, DR. W. W., Assistant Physician at Columbus State Hospital at Columbus, O., resigned July 15, 1906, to accept an appointment in the Insane Department of the Philadelphia Hospital at Philadelphia, Pa. He is a son of the late Dr. A. B. Richardson, formerly Superintendent of the Government Hospital for the Insane, Washington, D. C.

RORICK, DR. ESTELL H., formerly Superintendent of the Athens State Hospital at Athens, O., and later Superintendent of the Ohio Institution for Feebleminded Children at Columbus, O., resigned.

SIAKIN-ROSS, DR. VIADINE, formerly Superintendent of State Insane Hospital at Yankton, S. D., resigned to enter private practice in Sioux Falls, S. D.

SIMPSON, DR. CLARENCE E., Assistant Physician Eastern Michigan Asylum at Pontiac, Mich., resigned to enter private practice, October, 1906.

SINGER, DR. H. DOUGLAS, appointed Assistant Superintendent of the Norfolk Hospital for the Insane at Norfolk, Neb., July 30, 1906.

SKOLFIELD, DR. EZRA B., Second Assistant Physician at Eastern Maine Insane Hospital at Bangor, Me., resigned to enter private practice.

SKOOG, DR. A. L., First Assistant Physician at Kansas State Hospital for Epileptics at Parsons, Kan., resigned and appointed Pathologist at Woodcroft Hospital for Mental Diseases at Pueblo, Col.

STRIPP, DR. ALBERT E., Assistant Physician, Michigan Asylum at Kalamazoo, Mich., resigned September 1, 1906, to engage in private practice.

TALBOT, DR. ROBERT S., appointed First Assistant Physician at Central State Hospital at Petersburg, Va.

TATGE, DR. ORAL, appointed Assistant Physician at Massillon State Hospital at Massillon, O.

TURNBULL, DR. E. G., appointed Second Assistant Physician at Protestant Hospital for the Insane at Montreal, Quebec.

TYSON, DR. FOREST C., appointed Second Assistant Physician at Eastern Maine Insane Hospital at Bangor, Me.

VAN ZANDT, DR. EUCLID, Superintendent of the Western Washington Hospital for the Insane at Fort Steilacoom, Wash., resigned.

VAUGHAN, DR. HARRY F., Assistant Physician at Massillon State Hospital at Massillon, O., resigned.

WARD, DR. WILLIAM H., Superintendent of the Territorial Asylum for the Insane at Phœnix, Ariz., resigned.

WATERMAN, DR. CHESTER, appointed Medical Interne at Manhattan State Hospital at Ward's Island, N. Y., May 5, 1906.

WATKINS, DR. RACHEL A., Assistant Physician, Illinois Asylum for Incurable Insane, appointed September 28, 1906. Graduate 1906, University of Illinois, Medical Department.

WEATHERHEAD, DR. C. F., Second Assistant Physician at Protestant Hospital for the Insane at Montreal, Quebec, resigned November, 1905.

WHITMAN, DR. FRANK S., Superintendent at Northern Illinois Hospital for the Insane at Elgin, Ill., resigned June 30, 1906.

WILHITE, DR. OLE C., formerly Superintendent of State Inebriate Hospital at Knoxville, Iowa, appointed Superintendent of Cook County Institutions at Dunning, Ill., July 16, 1906.

WILSON, DR. GUSTAVE, promoted to be Second Assistant Physician at the Southern California State Hospital at Patton, Cal.

WILSON, DR. MCCLEOD C., appointed Clinical Assistant at Bloomingdale Asylum at White Plains, N. Y., June 26, 1906.

WRIGHT, DR. WILLIAM WESLEY, of Oswego, N. Y., appointed Junior Assistant Physician Buffalo State Hospital at Buffalo, N. Y., September 12, 1906.

YEAMAN, DR. MALCOLM H., Superintendent of the Central Kentucky Asylum for the Insane at Lakeland, resigned October 1, 1906, to take charge of Beechhurst, the Barton W. Stone Sanitarium at Louisville, Ky.

YOUNG, DR. G. A., Pathologist at the Nebraska Hospital for the Insane at Lincoln, Neb., was promoted on July 12, 1906, to be Superintendent of the Hospital for the Insane at Norfolk, Neb., but owing to legal complications he has not been able to assume the duties of that office and is now acting First Assistant Physician of the Nebraska Hospital for Insane at Lincoln, Neb.

Pamphlets Received

Announcement of College of Physicians and Surgeons of Baltimore, 1906-7.

The Journal of Prison Discipline and Philanthropy. January, 1906. Published annually by the Pennsylvania Prison Society.

Annual Announcement and Catalogue of the Baltimore Medical College, Baltimore, Md., Session 1906-7.

Thirteenth Annual Report of the Managers of the Middletown State Homœopathic Hospital at Middletown, N. Y., to the State Commission in Lunacy for the year ending September 30, 1905.

Superintendent's Biennial Report of the Iowa State Industrial School for Girls at Mitchellville, to the Board of Control of State Institutions for the period ending June 30, 1905.

Twenty-third Biennial Report of the Mount Pleasant State Hospital, and the Second Biennial Report of the Hospital for Inebriates at Mount Pleasant, to the Board of Control of State Institutions for the period ending June 30, 1905.

Warden's Biennial Report of the Penitentiary at Fort Madison, Iowa, to the Board of Control of State Institutions, for the period ending June 30, 1905.

Biennial Report of the Superintendent of the Iowa College for the Blind at Vinton to the Board of Control of State Institutions, June 30, 1905.

The Seventeenth Biennial Report of the Warden of the Penitentiary at Anamosa, to the Board of Control of State Institutions for the period ending June 30, 1905.

Biennial Report of the Superintendent of the Clarinda State Hospital at Clarinda, Iowa, June 30, 1906.

Twenty-first Biennial Report of the Superintendent F. F. Sessions, of the Iowa Soldiers' Orphans Home, at Davenport, June 30, 1905.

Seventeenth Biennial Report of the Superintendent of the Iowa State Hospital for the Insane at Independence, to the Board of Control of State Institutions for the period ending June 30, 1905.

Twenty-sixth Biennial Report of the Superintendent of the Iowa School for the Deaf at Council Bluffs, to the Board of Control of State Institutions for the period ending June 30, 1905.

Bulletin of the University of Nebraska, College of Medicine. Vol. I, No. 3, July, 1906. I. The Microscope in Its Relation to Medicine. James Carroll, M. D. II. A Study of Filtration in the Lung of the Frog. A. E. Guenther, M. D.

Bulletin No. 109 of the Maryland Agricultural Experiment Station, College Park, Md., May, 1906.

Sur les Simulateurs. Clément Charpentier. Extrait Des Actes du VI Congrès International d'Anthropologie Criminelle, Turin, 1906.

Quelques Temps De Reaction Chez Les Aliénés. Clément Charpentier. Extrait Journal de Psychologie Normale et Pathologique, Mai-Juin, 1906.